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ABSTRACTS. 1902. Parts I. & II.

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- $C_{14}H_{14}O_4N_2$, ethyl ester, from phenylhydrazine and ethyl *as*-diacetyl-succinate (v. MEYER, FRIESSNER, and v. FINDEISEN), A., i, 658.
- $C_{14}H_{19}O_6N$, from the base $C_{14}H_{18}O_4N_2$ (FREUND and BAMBERG), A., i, 556.
- Acid**, $C_{15}H_{20}O_6N_2$, ethyl ester, from ethyl ethyldienemalonate and ethyl β -aminocrotonate (KNOEVENAGEL and BRUNSWIG), A., i, 641.
- $C_{16}H_{11}O_2N$, from fluorenonequinoline (DIELS and STAEBLIN), A., i, 830.
- $C_{16}H_{17}O_6N$, from the oxidation of corydyl acid by permanganate (DOBBIE and LAUDER), T., 156.
- $C_{17}H_{16}O_3$ (two), from the reduction of α -oxy- β -phenyl- γ -benzylbutyrolactone and of α -oxy- γ -phenyl- β -benzylidenebutylolactone (ERLENMEYER), A., i, 543.
- $C_{17}H_{21}O_5N$, from cinnamic acid piperide and ethyl sodiomalonate (VORLÄNDER), A., i, 310.
- $C_{17}H_{34}O_2$, from olive oil (HOLDE), A., i, 257.
- $C_{18}H_{15}O_4N$, $C_{18}H_{16}O_5N$, and $C_{18}H_{17}O_5N$, from cinnamanilide and ethyl sodiomalonate (VORLÄNDER), A., i, 311.
- $C_{18}H_{16}O_5N_2$, from benzinedicarboxylic acid (MOIR), P., 1902, 196.
- $C_{22}H_{20}O_3$, from α -truxillic acid (RIIBER), A., i, 617.
- $C_{22}H_{28}O_8N_2$, or $C_{22}H_{30}O_8N_2$, and $C_{44}H_{64}O_{18}N$, from the action of nitric acid on digitogenic acid (KILIANI and MERK), A., i, 46.
- $C_{23}H_{28}O_6N_2$, ethyl ester, from ethyl cuminyldienemalonate and ethyl β -aminocrotonate (KNOEVENAGEL and BRUNSWIG), A., i, 641.
- Acid-albumin**. See Albumin.
- Acid amides**. See Amides.
- Acid anhydrides**. See Anhydrides.
- Acid chlorides**, preparation of (CHEMISCHE FABRIK VON HEYDEN), A., i, 93.
- formation of, by means of thionyl chloride (MEYER), A., i, 31.
- action of, on aldehydes, in presence of zinc chloride (DESCUÉE), A., i, 149, 339, 451.
- interaction of, with aldehydes and ketones (LEES), P., 1902, 213.
- action of, on methyl and ethyl sodio-acetoacetate (BONGERT), A., i, 73.
- action of, on trioxymethylene (DESCUÉE), A., i, 149, 339, 738.
- Acid imides**, compounds of, with mercury and with silver (LEY and SCHAEFFER), A., i, 358.
- Acidimetry**, normal alkalis and indicators in (JUNGCLAUSSEN), A., ii, 46.
- of phosphoric acid (BERTHELOT), A., ii, 255.
- Acid solutions**, methods of standardising (HOPKINS), A., ii, 46.
- Acids** from the oil of *Asarum canadense* (POWER and LEES), T., 72; P. 1901, 210.

Acids of *Bignonia Catalpa* (PIUTTI and COMANDUCCI), A., ii, 523.
 from eucalyptus oil (SMITH), A., i, 103.
 from lichens (ZOPF), A., i, 465, 789; (HESSE), A., i, 680.
 from oil of rue (POWER and LEES), T., 1589; P., 1902, 193.
 synthesis of, by means of magnesium organic compounds (GRIGNARD), A., i, 142.
 formation of, in autolysis of the liver (MAGNUS-LEVY), A., ii, 517.
 determination of the affinities of (DAWSON and GRANT), T., 513; P., 1902, 68.
 bases, and salts, dissociation of, at different temperatures (JONES and DOUGLAS), A., ii, 59.
 esterification of, with phenols (BAKUNIN), A., i, 370.
 microchemical test for alkalis and (EMICH), A., ii, 45.
Acids of the acetic series, solubilities of the calcium salts of the (LUMSDEN), T., 350; P., 1902, 31.
 compounds of, with beryllium (LACOMBE), A., i, 418.
Acids, carboxylic, syntheses of (HOUBEN and KESSELKAUL), A., i, 583.
Acids of complex function, colorimetric titrations of (BERTHELOT), A., i, 199.
Acids, dibasic, dissociation of (WEGSCHEIDER), A., ii, 643.
Acids, fatty, in contaminated waters (CAUSSE), A., ii, 360.
 electrolysis of salts of the, formation of alcohols and aldehydes by the (HOFER and MOEST), A., i, 736.
 decomposition of (NEF), A., i, 8.
 halogen derivatives of (FREER), A., i, 200.
 α -, β -, γ -, and δ -halogen derivatives of, velocity of esterification and electrical conductivity of (LICHTY), A., i, 201.
 glycerol esters, action of superheated steam on (KLIMONT), A., i, 202.
 higher, formation of, from sugar (MAGNUS-LEVY), A., ii, 614.
 action of, on alkali carbonates (KLIMONT), A., i, 132.
 volatile, amount of, in butter fat (VIETH), A., ii, 348.
Acids, organic, in some South European fruits (BORNTREAGER), A., ii, 347.
 synthesis of (WALTHER), A., i, 203.
 history of the electrolysis of (BUNGE), A., i, 338.
 influence of constitution on the affinity constants of (WEGSCHEIDER), A., ii, 494.

Acids, organic, action of, on antimony (MORTIZ and SCHNEIDER), A., i, 703.
 action of, on antimony oxides (JORDIS), A., i, 740.
 action of phosphorus trichloride on (DELACRE), A., i, 527.
 compounds of, with antimony pentachloride (ROSENHEIM and STELLMANN), A., i, 68; (ROSENHEIM and LOEWENSTAMM), A., i, 358.
 compounds of, with bismuth (PRUNIER), A., i, 76.
 non-volatile, amount of, in tobacco leaves at various periods of their growth (KISSLING), A., ii, 625.
Acids, soluble, estimation of, in butter (VANDAM), A., ii, 541.
Acids, $\gamma\delta$ -unsaturated monobasic, preparation of (SOLONINA), A., i, 256.
Acids, unsaturated dicarboxylic, from ketones and ethyl succinate (STOBBE), A., i, 459; (STOBBE and NIEDENZU), A., i, 460; (STOBBE, STRIGEL, and MEYER), A., i, 461.
Acids, unsaturated, of the sorbic acid series, and their transformation into cyclic hydrocarbons (DOEBNER), A., i, 598.
Acids, volatile, formation of, in alcoholic fermentation (SEIFERT), A., ii, 98.
 estimation of, in wine (CURTEL), A., ii, 55; (ROCQUES and SELLIER), A., ii, 111; (SELLIER, MÖSLINGER), A., ii, 180; (DUGAST), A., ii, 235.
Acids, weak, salts of, action of methyl alcohol on (WISLICENUS and STOEBER), A., i, 202.
Acids (or their derivative or salts). See also:—
 Acetaldehyde- $\beta\beta$ -disulphonic acid.
 Acetic acid.
 Acetoacetic acid.
 Acetone- β -naphthylcarbamic acid.
 Acetone- $\alpha\gamma\gamma$ -trisulphonic acid.
 Acetophenone-phenyl- and -*o*-tolylcarbamic acids.
 α -Acetoxy- γ -phenylcrotonic acid.
 Acetylcochenillic acid.
 Acetylhydroxamic acid.
 Acetyl-*m*-hydroxyphenyl-*p*-tolylaminesulphonic acids.
 Acetylindoxyllic acids.
 Acetylmethylantranilic acid.
 γ -Acetylmethylbutyric acids.
 5-Acetyl-4-methylpyrazole-3-carboxylic acid.
 5-Acetyl-4-methylpyrazoline-3:5-dicarboxylic acid.
 α -Acetyl- γ -phenylacetoacetic acid.
 γ -Acetyl- γ -phenylbutyrolactone- β -carboxylic acid.
 o -Acetylphenylcarbamic acid.

Acids. See :—

Acetylphenylmalonic acid.
 5-Acetyl-4-phenylpyrazoline-3:5-di-carboxylic acid.
 Acetylisopropylbutyric acid.
 Acetyldithiocarbamic acid.
 Aconitic acids.
 Acetylanoacetic acids.
 Acylthiocarbamic acids.
 Adipic acids.
 Afelemic acid.
 Agaric acid.
 Agaricic acid.
 Alanine.
 Alanylalaninecarboxylic acid.
 β -Aldehydic acids.
 8-Aldehydonaphthoic acid.
 Alkylmalonic acid.
 Allophanic acid.
 Aminoximeoxalic acid.
m-isoAmylaminobenzoic acid.
m-isoAmylaminohexahydrobenzoic acid.
 Angelic acid.
 Anhydrobrazilic acid.
 β -Anilinoacrotic acid.
 β -Anilino- β -cyanobutyric acid.
 Anilinoethylenetricarboxylic acid.
 2-Anilinohydrocarbostyryl-2-carboxylic acid.
 Anilinomalonic acid.
 Anilinoethylenemalonic acid.
 2-Anilino-3:5-dinitrobenzoic acid.
 Anilinophosphamic acid.
 Anilino-*p*-toluidinophosphoric acid.
p-Anisidinomethylenemalonic acid.
 Anisolepropionic acid.
 α -Anisylidenelævulic acid.
 Anisylidenemalic acid.
 Anthragalolsulphonic acid.
 Anthranilic acid.
 Anthranilic-acetonitrilic acid.
 Anthraquinonedisulphonic acid.
 Anthraquinonesulphonic acids.
 Apionic acid.
 Apophyllenic acid.
 α -Arabonic acid.
 Aromadendric acid.
 Artemic acid.
 Asparagine.
 Benzaldehydephenylhydrazone-*p*-sulphonic acid.
 Benzenepentacarboxylic acid.
 Benzenesulphinic acid.
 Benzenesulphonic acid.
 Benzenethiosulphonic acids.
 Benzenoid aminosulphonic acids.
 Benzhydroxamic acid.
 Benzidinedimalonic acid.
 Benzilic acid.
 Benzoic acid.
 Benzoic-acetic acid.

Acids. See :—

Benzoic-toluic acids.
 Benzosulphurylphenylglycinecarboxylic acid.
 Benzoylacetacetic acid.
 Benzoylaminohexoic acids.
 Benzoylglucylaminoacetic acid.
 Benzoylglucylglycylaminoacetic acid.
 Benzoylglucylglycylglycylaminoacetic acid.
 Benzoyldimethylmalonic acid.
N-Benzoylindoxyllic acid.
 Benzoyl-*p*-nitrobenzoylacetacetic acid.
 β -Benzoylpicolinic acid.
 Benzoyltartaric acid.
 Benzoyldithiocarbamic acid.
 β -Benzylaminocrotonic acid.
 Benzylaniline-*p*-sulphonic acid.
 Benzylbromomalonic acid.
 Benzylcarboxyaconitic acid.
 β -Benzyl-*o*-hydrazinobenzoic acid.
 Benzylidenacetophenone-acetoacetic acid.
 α -Benzylideneglutaconic acid.
 Benzylidene-*o*-hydrazinobenzoic acid.
 α -Benzylidenelævulic acid.
 Benzylidenemalic acid.
 Benzylidenemalonic acid.
 Benzylmethylenelactic acid.
 Benzylphthalamic acid.
 Berberidic acid.
 Berberonic acid.
 Bisdinaphthaxanthylsulphonic acid.
 Bismuthigallic acid.
 Bismuthogallic acid.
 Borneolglycuronic acid.
 Brazilic acid.
 Brazilinic acid.
 Butanedicarboxylic acids.
 Butanepentacarboxylic acid.
 Butanetetracarboxylic acids.
 Butanetricarboxylic acids.
 α -isoButyl- β -isomylacetic acid.
 Butylenelhexacarboxylic acid.
 Butylene-tri- and -penta-carboxylic acids.
 Butylenetetracarboxylic acids.
 α -isoButyl- β -isopropylbutyric acid.
 α -isoButyl- β -isopropyl- γ -hydroxybutyric acid.
 isoButylpyruvic acid.
 Butyric acids.
 Butyrylacetacetic acid.
 Butyrylbutyric acid.
 Butyrylpyruvic acid.
 Cacodylic acid.
 Caffetannic acid.
 Calameonic acid.
 Camphenolglycuronic acid.
 Campholenic acids.
i- α -Campholytic acid.

Acids. See :—

Camphonic acid.
 Camphononic acid.
β-Camphoramidic acid.
β-Camphoranic acid.
 Camphorenic acid.
 Camphoric acid.
 Camphoronic acid.
*iso*Camphoronic acid.
 Camphorsulphonic acid.
 Carbinoglycylglycine.
 Carbethoxyphenylglycinecarboxylic acid.
 Carbonyldiglycylglycine.
 Carbonyldihydroxydinaphthylamine-disulphonic acids.
 Carbonyldiphenylglycine.
o-Carboxyanilino-*α*-phenylacetic acid.
 Carboxydimethoxybenzoylformic acid.
 Carboxydimethoxybenzylformic acid.
 2-Carboxy-5:6-dimethoxyphenoxy-acetic acid.
 Carboxyglutaric acid.
 2-Carboxy-5-methoxyphenoxyacetic acid.
 Carboxymethoxyphenoxyacetic acid.
 3-Carboxy-2-methylfurfuran-4-acetic acid.
 Carboxyphenylarsenic acids.
 Carboxytolylarsenic acids.
 Carvomentholacetic acid.
 Caseonic acid.
 Chondroitinsulphuric acid.
 Chromicyanic acid.
 Chromone-2-carboxylic acid.
 Chrysodiphenic acid.
 Chrysophanic acid.
 Cinchomeron-3-amic acid.
 Cinchomeronic acid.
 Cinchomerylglycine.
 Cinchotinesulphonic acid.
 Cinnamylacrylic acid.
 Cinnamic acids.
 Cinnamoylaminoacetic acid.
 Cinnamylidenemalononic acid.
 Citralideneacetic acid.
 Citralideneacetoacetic acids.
 Citrarialic acid.
 Citric acid.
 Cobalticyanic acid.
 Cobaltioxalic acid.
 Coccic acid.
 Cochenillic acid.
 Corydalinesulphonic acid.
 Corydic acid.
 Corydilie acid.
 Cotarnic acid.
 Coumarilic acid.
β-Cresotic acid.
 Crotonic acid.
ψ- and *p*-Cumylarsenic acids.
 Cyanic acid.

acids. See :—

Cyanuric acid.
*iso*Cyanuric acid.
 Decenoic acid.
 Decoic acids.
 Dehydrocamphoric acid.
 Dehydromucic acid.
 Desmotroposanthonous acid.
 Desylcinnamic acid.
 Desyleneacetic acids.
 Desylenemalononic acid.
 Dhurrinic acid.
γγ-Diacetylbutyric acid.
ββ-Diacetyl-*α*-methylpropionic acid.
 Diacetylorthonitric acid.
 Dianilinomalonic acid.
 2:6-Dianilinopyridine-4-carboxylic acid.
 Di-*o*-anisylidihydrazonocycanoacetic acid.
 Di-*o*-anisylidihydrazonemalononic acid.
 Dibenzoylmesitylenic acids.
 Dibenzoyltartaric acid.
 Dibenzoyltrimesic acid.
 Dibenzoyluvic acids.
 Dibenzylidenacetone-acetoacetic acid.
 Dibenzylidenelævulic acid.
 Dicarboxyaconitic acid.
 Dicarboxyglutaconic acid.
 Dicarboxyglutaric acid.
 Dicarboxyphenylarsenic acid.
 3:5-Dicarboxypyrrole-2:4-diacetic acid.
 Diethylaminoacetic acid.
 Diethylarsinibenzoic acid.
p-Diethylarsinobenzoic acid.
s-aa-Diethylglutaric acid.
 Diethylglycollic acid.
 Diethyl-*α*-naphthylamine-5-sulphonic acid.
 Diethyl-*o*-toluidine-4-sulphonic acid.
 Digitic acid.
 Digitogenic acid.
 Digoitic acid.
 Dihydrobrazilic acid.
α-Dihydrocampholenic acid.
 Dihydrocampholytic acids.
 Dihydrocamphoric acid.
 Dihydrocarboxystyryl-4-acetic acid.
 Dihydrocornicularic acid.
 Dihydrofencholenic acid.
 Dihydrolutidinedicarboxylic acid.
 Dihydro-2-lutidone-3:5-dicarboxylic acid.
Δ^{1:5}-Dihydro-*m*-tolylacetic acid.
 2:6-Dihydroxycinchomeronic acid.
 2:2'-Dihydroxydiphenyl-di- and -tetra-sulphonic acids.
 3:4-Dihydroxyhydratropic acid.
 1:1'-Dihydroxy-6:6'-ketoethylenedinitro-naphthylamine-3:3'-disulphonic acid.

Acids. See :—

- 4:7-Dihydroxy-6-methoxydihydroquinaldine-5-carboxylic acid.
γδ-Dihydroxy-**γ**-methyl-**γ**-ethylpyrotartaric acid.
 2:3-Dihydroxynaphthalene-6:8-disulphonic acid.
 Di-3- and -*o*-hydroxy-2-phenylquinoxalinesulphonic acid.
 Dihydroxyisopropylhypophosphorous acid.
 2:6-Dihydroxypyridine-3:4-di- and -3:4:5-tri-carboxylic acids.
 1:2-Diketopentamethylene-3:5-dicarboxylic acid.
 Dimethoxybenzoylpropionic acid.
 5:7-Dimethoxychromone-2-carboxylic acid.
 4:6-Dimethoxycoumaric acid.
 4:6-Dimethoxycoumarilic acid.
 3:4-Dimethoxyhydratropic acid.
 Dimethoxymethylenedioxyhydratropic acid.
 Dimethylacetooacetic acid.
 Dimethylacrylic acid.
ββ-Dimethyladipic acid.
 Dimethylaminoacetic acid.
p-Dimethylaminobenzylidene-*p*-aminobenzenesulphonic acid.
γ-Dimethylaminobutyric acid.
 Dimethylaminophenylarsenic acid.
β-Dimethylaminopropionic acid.
 Dimethylaniline-6-carboxylic acid.
 Dimethylaniline-6-sulphonic acid.
 Dimethyldibromoethylacetic acid.
αα-Dimethylbutane-**αβδ**-tricarboxylic acid.
βγ-Dimethyl-**α**-isobutylvaleric acid.
βγ-Dimethylbutyrolactoneacetic acid.
βγ-Dimethylcrotonolactoneacetic acid.
 3:5-Dimethyl- $\Delta^{1:5}$ -dihydrophenylacetic acid.
 2:4-Dimethylfurfuran-3-carboxylic acid.
αα-Dimethylglutaconic acid.
 Dimethylglutaric acids.
 1:3-Dimethyl-5-cyclohexanecarboxylic acid.
 1:1'-Dimethylcyclohexanemalonic acid.
 3:5-Dimethylcyclohexane-3-ol-1-one-4:6-dicarboxylic acid.
 Dimethylhomophthalcarboxylic acid.
 Dimethylmalonic acid.
 Dimethyl-**α**-naphthylaminesulphonic acids.
 2:6-Dimethylnicotinic acid.
 Dimethylloxazolepropionic acids.
 Dimethylphloroglucinolcarboxylic acid.
 Dimethylphthalide-acetic, -bromo-tetronic and -tetronic acids.

Acids. See :—

- αβ**-Dimethylpropanetricarboxylic acid.
 2:4-Dimethylpyridine-3:5-di- and -3:5:6-tri-carboxylic acids.
 Dimethylpyrroenedicarboxylic acid.
 4:6-Dimethyl-1:2-pyrone-5-carboxylic acid.
 Dimethylpyruvic acid.
γϵ-Dimethylsorbic acid.
 Dimethylsuccinic acid.
 Dimethyltricarballic acids.
 Dimethyltrimethylenedicarboxylic acid.
 Dimethylvinylacetic acid.
 Dimethylvioluric acid.
 1:4-Dioxyopyrnicarboxylic acid.
 Dioxysilvic acid.
 Dioxytariric acid.
 Diphenylacetic acid.
γδ-Diphenylallylacetic acid.
 Diphenyldihydrazonocynoacetic acid.
 Diphenyldihydrazonemalonic acid.
ββ-Diphenyl-**αα**-dimethylpropionic acid.
 Diphenyl-4:4'-disulphonic acid.
 Diphenyleneketonecarboxylic acid.
 Diphenylenequinoxalinesulphonic acid.
 Diphenylglycollic acid.
 Diphenylmethane-3:3'-dicarboxylic acid.
 Diphenylmethylpyrrolecarboxylic acids.
γδ-Diphenyl-**γ**-pentenoic acid.
 1:4-Diphenylpyrrolidone-mono- and -5:5-di-carboxylic acids.
 Diphenyltetramethylenebisbromomethylenecacetic acid.
 Diphenyltetramethylenebismethylenemalonic acid.
 Diphenyltetrenecarboxylic acid.
 Diphenyltetrenedicarboxylic acid.
 Diphenylthiocynoacetic acid.
αδ-Diphenylvaleric acid.
 Dipropionylrthonitric acid.
αγ-Diisopropyltricarballic acids.
 Dipyridoylsuccinic acids.
 Disulphobenzoic acid.
 Di-*o*-tolylldihydrazonocynoacetic acid.
 Di-*o*-tolylldihydrazonemalonic acid.
 Diurethanepyruvic acid.
δ-Erythronic acid.
 Ethanedicarboxylic acid.
 Ethanetetracarboxylic acid.
 Ethoxyanilinophosphoric acid.
 4-Ethoxy-4-isobutylquinolnitrolic acid.
 Ethoxydeoxybenzoincarboxylic acids.
 4-(or 5-)Ethoxydibenzyl-2-carboxylic acid.
 4-Ethoxy-2:6-dimethylnicotinic acid.

Acids. See:—

δ -Ethoxy- β -hexanone- ϵ -carboxyl-
 amide- γ -carboxylic acid.
 3-Ethoxyphenanthrene-10-carboxylic
 acid.
p-Ethoxyphenylacetic acid.
 α -*p*-Ethoxyphenyl-*o*-amino- and -*o*-
 -nitro-cinnamic acids.
p-Ethoxyphenylsuccinamic acid.
 β -Ethoxyphthalylacetic acid.
 4-(or 5)-Ethoxystilbene-2-carboxylic
 acid.
p-Ethoxysuccinilic acid.
 Ethoxysulphinic acid.
 Ethoxy-*p*-toluidinophosphoric acid.
 Ethylbutyrylacetic acid.
 Ethylcarboxyaconitic acid.
 Ethylenebis-1-tetrahydroisoquinoline-
 1-acetic acid.
 Ethylenedicarboxylic acid.
 Ethylhexoylacetic acid.
 Ethylideneacetoacetic acid.
 Ethylidenebisacetoacetic acid.
 α -Ethylidenediglutaconic acid.
 α -Ethylideneglutaric acid.
i-Ethylidenelactic acid.
 Ethylmalonic acid.
 3-Ethylpyridine-4-carboxylic acid.
 1-Ethyltetrahydroquinolinecarboxylic
 acid.
 Eudesmic acid.
 Euxanthic acid.
 Ferribenzoylacetic acid.
 Ferricyanic acid.
 Ferrioxalic acid.
 Ferrisalicylic acid.
 Ferrocyanic acid.
 Filixic acid.
 Flavaspidic acids.
 Fluorene-carboxylic acid.
 Fluorene-oxalic acid.
 Fluorenone-5-carboxylic acid.
 Formic acid.
 Formylphenylacetic acid.
 Fumaric acid.
 Furfurandicarboxylic acid.
 Furfuransulphonic acid.
 Furfurylcarbamic acid.
 β -Furfurylglutaric acid.
 Galactonic acid.
 Gallic acid.
 Gitonic acid.
 Glomellie acid.
 Glucophosphoric acid.
 Glutaconic acid.
 Glutamic acid.
 Glutaric acids.
 Glycero-arsenic acid.
 Glycerophosphorous acid.
 Glycine.
 Glycocyanine.
 Glycollic acid.

Acids. See:—

Glycuronic acid.
 Glycylglycine.
 Glycylglycinecarboxylic acid.
 Glycylglycyl-leucinecarboxylic acid.
 Glyoxylic acid.
 Guaiacoloxyfumaric acid.
 Guaiacolsulphonic acid.
 Hæmatoxylinic acid.
 Hæmotricarboxylic acids.
 Hemipinic acids.
*cyclo*Heptanecarboxylic acid.
 Heptanedicarboxylic acid.
*cyclo*Heptane-1-olacetic acid.
 Heptane- α - γ - ϵ -hexacarboxylic acid.
 Heptenoic acid.
 Heptoic acid.
 Hexahydrobenzoic acid.
 Hexahydrolutidinedicarboxylic acid.
 Hexahydro-*o*-toluic acid.
*cyclo*Hexanecarboxylic acid.
 Hexanedicarboxylic acids.
 Hexanetricarboxylic acid.
 Hexenoic acid.
 Hexoic acids.
 Hexoylacetic acid.
 Hexoylacetacetic acid.
sec-Hexylacetacetic acid.
*cyclo*Hexylbenzenesulphonic acid.
 Hexylbutyrylacetic acid.
 Hippuric acid.
 Homo-allantoic acid.
 Homonicotinic acid.
 Homoparacopaivic acid.
 Homopilomalic acid.
*iso*Hydrochelidonic acid.
 Hydrocinnamic acid.
 Hydroxamic acids.
 Hydroxamino-oximinomalonic acid.
m-Hydroxy-*o*-isoamylbenzoic acid.
 5-Hydroxy-2-anilinnaphthalene-7-
 sulphonic acid.
 Hydroxyanthraquinonesulphonic
 acids.
 Hydroxybenzoic acids.
o-Hydroxybenzylideneacetoacetic acid.
 Hydroxybutyric acids.
 β -Hydroxycamphoronic acid.
 4-Hydroxyisocarboxystyrylphthaloylic
 acid.
p-Hydroxycinnamic acid.
 Hydroxycomenic acid.
p-Hydroxycumylacetic acid.
 Hydroxydehydroisophotosantoniacid.
 β -Hydroxy- $\alpha\alpha$ -diethylglutaric acid.
 4-Hydroxydihydrofencholenic acid.
 β -Hydroxy- $\alpha\alpha$ -dimethylglutaric acid.
 6-Hydroxy-2:5-dimethylpyridine-3-
 carboxylic acid.
 Hydroxydiphenylacetic acid.
 Hydroxydiphenylaminesulphonic
 acids.

Acids. See :—

2-Hydroxy-5-ethoxybenzoylpyruvic acid.
 α -Hydroxy-4-(or 5-)ethoxydibenzyl-2-carboxylic acid.
m-Hydroxy-*o*-ethylbenzoic acid.
 Hydroxyglutaric acids.
m-Hydroxyhexahydrobenzoic acid.
p-Hydroxyhexahydrotoluic acid.
 6-Hydroxy-2-keto- $\Delta^{3,5}$ -dihydropyridinetricarboxylic acid.
 1-Hydroxylaminooanthraquinone-2-sulphonic acid.
 2-Hydroxy-4:6-lutidine-3-carboxylic acid.
o-Hydroxymandelic acid.
o-Hydroxymercurisalicyclic acid.
 6-Hydroxy-4-methoxybenzoylpropionic acid.
 2-Hydroxy-4-mono- and -4:6-dimethoxybenzoylpyruvic acids.
p-Hydroxy-*m*-methoxyphenylmethanebis-2:5-dimethylpyrrole-3-carboxylic acid.
 β -Hydroxy- β -methyl- α -ethylbutyric acid.
 2-Hydroxy-4-methylquinoline-3-carboxylic acid.
 Hydroxymethylsalicylic acid.
 6-Hydroxymethyl-2:3:4-trimethylquinolinic acid.
o-Hydroxynaphthoic acids.
 2-Hydroxy-3-naphthoic acid.
 1-Hydroxy-2-naphthoylpyruvic acid.
 4-Hydroxynicotinic acid.
o-Hydroxyphenylmethanebis-2:5-dimethylpyrrole-3-carboxylic acid.
 β -4-Hydroxyphenyl- β -methoxypropionic acid.
 β -4-Hydroxyphenylpropionic acid.
m-Hydroxyphenyl-*p*-tolylaminesulphonic acids.
m-Hydroxyphenyl-*p*-tolylnitrosoaminesulphonic acid.
 4-Hydroxyphthalic acid.
 β -Hydroxy- β -piperonyl- α -dimethylpropionic acid.
 Hydroxypivalic acid.
 α -Hydroxypropionic acid.
 ϵ -Hydroxy- β -isopropylheptoic acid.
 Hydroxyisopropylhypophosphorous acid.
 Hydroxyisopropylphosphinic acid.
 Hydroxypyrrolidine-2-carboxylic acid.
 Hydroxyterephthalic acid.
 2-Hydroxy-*m*-toluic acid.
 8-Hydroxy-2-*o*-tolylaminonaphthalene-6-sulphonic acid.
 β -Hydroxy- β -*p*-tolyl- $\alpha\alpha$ -dimethylpropionic acid.
 β -Hydroxy- β - γ -trimethylpentanedioic acid.

Acids. See :—

γ -Hydroxyundecioic acid.
 Hydroxyvaleric acids.
p-Hydroxy-*p*-xylylactic acid.
 5-Hydroxy-2-*o*-xylylaminonaphthalene-7-sulphonic acid.
 Illuric acid.
 Indigotinsulphonic acid.
 Indole-2-carboxylic acid.
 Indoneacetic acids.
 Indophenazinecarboxylic acid.
 Iononecarboxylic acids.
 Isatoic acid.
 Isoprenic acid.
 Kairolinocarboxylic acids.
 Ketocampholenic acid.
 Ketodihydrocampholenic acid.
 γ -Keto- $\alpha\delta$ -diphenyliminopentane- α -carboxylic acid.
 Keto-3:5-diphenyl- Δ^2 -tetrahydrobenzene-6-carboxylic acid.
 Ketoheptyltetronic acid.
 2-Ketomethylhexamethylenecarboxylic acid.
 α -Keto- β -methylhexolactone- γ -carboxylic acid.
 2-Ketomethylisopropylhexamethylene carboxylic acid.
 1-Keto-5-phenyl-3-cinnameryl- Δ^2 -tetrahydrobenzene-6-carboxylic acid.
 ϵ -Keto- β -isopropylheptoic acid.
 δ -Keto- β -isopropylhexoic acid.
 Ketotariric acid.
 Lactic acids.
 Lauric acid.
 Lauronolic acid.
o-Leucauraminobenzoic acid.
 Leucine.
 Leucylleucine.
 Lupinic acid.
 Lutidinedicarboxylic acid.
 ψ -Lutidostyryl-5-carboxylic acid.
 Lysalbic acid.
 Malamic acid.
 Malic acid.
 β -isoMalic acid.
 Malondihydroxamic acid.
 Malonic acid.
 Malontetranilic acid.
 Mancopalenic acid.
 Mancopalic acid.
 Mancopalolic acid.
 Manelemic acids.
 Mellic acid.
 Mentholacetic acid.
 Mentholglycuronic acid.
 Mercaptothionic acid.
 Mercuribenzoic acid.
 β -Metacopaivic acid.
 Metanilic acid.
 Methanedisulphonic acid.
 Methenyldianthranilacetic acid

Acids. See :—

Methoxyanilinophosphoric acid.
 7-Methoxychromone-2-carboxylic acid.
 4-Methoxy-4-ethoxyquinol-1-nitrolic acid.
p-Methoxyhydratropic acid.
 2-Methoxyphenanthrene-9-carboxylic acid.
 α -Methoxyphthalic acid.
p-Methoxysalicylic acid.
 Methoxysulphinic acid.
 Methoxy-*p*-toluidinophosphoric acid.
 Methylanthranilic acid.
 Methylarsenic acid.
 δ -Methyl- α -isobutylhexoic acid.
 Methylcamphocarboxylic acid.
 Methylcarboxyaconitic acid.
 Methylene- α -alanine.
 Methylenebisanthranilic acid.
 Methyleneecitric acid.
 Methylene-di-2-hydroxy-3-naphthoic acid.
 Methylene-dimethylsuccinic acid.
 Methylene-dioxyphenylmethane-bis-2:5-dimethylpyrrole-3-carboxylic acid.
 Methylene-disuccinic acid.
 γ -Methyl- γ -ethylaconic acid.
 Methyl-ethylaminoacetic acid.
 5-Methyl-3-ethyl- $\Delta^{3:5}$ -dihydro-phenylacetic acid.
 γ -Methyl- γ -ethylidenepyrrotartaric acid.
 γ -Methyl- γ -ethylparaconic acid.
 Methylfluoreneoxalic acid.
 Methylhexahydrocinchonimeronic acid.
 1-Methylcyclohexane-3-acetic and -3-malonic acids.
 Methylcyclohexanecarboxylic acids.
 1-Methylcyclohexane-3-ol-3-acetic acid.
 1-Methylcyclohexane-3-ol-3-butyric acid.
 1-Methylcyclohexane-3-ol-3-propionic acid.
 1-Methylcyclo- Δ^3 -hexene-3-acetic acid.
 Methylhexenoic acids.
 δ -Methylhexoic acid.
 Methylhexylpyruvic acid.
N-Methylindoxyllic acid.
 Methylmalonamic acid.
 Methyl-naphthylaminesulphonic acids.
 Methylparaconic acid.
 1-Methylcyclopentane-3-carboxylic acid.
 β -Methylcyclopentanemethylidene-carboxylic acid.
 β -Methylcyclopentanolacetic acid.
 β -Methyl- δ -pentanone- $\alpha\alpha$ -dicarboxylic acid.
 Methylphloroglucinolcarboxylic acid.
 β -Methylpimelic acid.

Acids. See :—

1-Methylpiperidine-2:6-dicarboxylic acid.
 α -Methyl- δ -isopropyladipic acid.
 δ -Methyl- α -isopropylhexoic acid.
 4-Methylpyrazoledicarboxylic acid.
 Methylpyridinecarboxylic acids.
 Methylpyridinetricarboxylic acid.
 2-Methyl-6-pyridylacetic acid.
 4-Methylpyrimidine-6-carboxylic acid.
 2-Methylpyrrole-3:4:5-tricarboxylic acid.
 1-Methylpyrrolidine-2-mono- and -2:5-di-carboxylic acids.
 Methylrubarazonic acid.
 5-Methylsalicylic acid.
 γ -Methylsorbic acid.
 1-Methyltetrahydroquinolinecarboxylic acids.
 Methyltetramethylenedicarboxylic acid.
 Methyltetronic acid.
 Methyl*d*ithiocarbamic acid.
 Methylthiocyanomalonic acid.
 α -Methyltricarballic acids.
 β -Methyluracil-4-carboxylic acid.
 δ -Methyluric acid.
 Montanic acid.
 Mucobromic acid.
 Mucochloric acid.
 Muconic acid.
 α -Naphthachromonecarboxylic acid.
 Naphthalaldehydic acid.
 Naphthalene-1:2-dicarboxylic acid.
 Naphthalenedisulphonic acid.
 Naphthalenoidaminosulphonic acids.
 Naphthalene-8-sulphonic acid.
 Naphtharonylacetic acid.
 Naphthenecarboxylic acids.
 Naphthoic acids.
 Naphtholsulphonic acids.
 Naphthoxyfumaric acids.
 β -Naphthylamine-8-sulphonic acid.
 β -Naphthylamino-3-naphthoic acid.
 Nicotinic acid.
*iso*Nicotinic acid.
 Niobioxalic acid.
 Nonanedicarboxylic acid.
 Nonanetricarboxylic acids.
 Nonoic acid.
 Norbrazilinic acid.
 Norisoscacharic acid.
 Ochrolechiasic acid.
 Octanedicarboxylic acid.
 Opianic acid.
 Ornithine.
 Orthoformic acid.
 Osmylloxalic acid.
 Oxalacetic acid.
 Oxalic acid.
 Oxalodihydroxamic acid.
 Oxaluric acids.

Acids. See :—

Oximinocynoacetic acid.
 Oximinomalonic acid.
 Oximinomalon-*o*-tolylamic acid.
 Oximino-oxalic acid.
 α -Oximinovaleeric acid.
p-Oxydiethylarsinibenzoic acid.
 Oxyfulminic acid.
 Oxymethylpyridonecarboxylic acid.
*allo*Oxyproteic acid.
 Palmitic acid.
 Papaveric acid.
 Paracopaivic acid.
 Pentanedicarboxylic acid.
 Pentanehexacarboxylic acid.
*cyclo*Pentanemethylidenecarboxylic acid.
 Pentanetetracarboxylic acids.
 Pentanetricarboxylic acids.
*cyclo*Pentanolacetic acid.
 Pentenedicarboxylic acids.
 Pentenetetracarboxylic acid.
 Pentenoic acids.
 Pepsinic acid.
*iso*Persulphocyanic acid.
 Phellandrenolglycuronic acid.
 Phenanthraquinonecarboxylic acids.
 Phenanthraquinonesulphonic acid.
 Phenanthrene-9-carboxylic acid.
 Phenanthrenesulphonic acids.
 Phenanthroic acids.
 Phenanthroxyacetic acids.
p-Phenetylthiohydantoic acid.
 Phenolglycuronic acid.
 Phenol-6-sulphonic acid.
 Phenolsulphuric acid.
 Phenylacetic acid.
 Phenylacetic-benzoic acid.
 Phenylalanine.
 Phenylallophanic acid.
 Phenylarsenic acid.
 Phenylarsenious acid.
 γ -Phenyl- α -benzoylacetoacetic acid.
 Phenylbromomalonic acid.
 Phenylcarboxyaconitic acid.
 Phenyl- α -chloroacetic acid.
 Phenylcinnamic acid.
 4-Phenyldihydro-2-picolone-5-carboxylic acid.
 1-Phenyl-3:5-dimethylpyrazole-4-acetic acid.
 Phenyldimethylpyrazolepropionic acids.
 1-Phenyl-2:5-dimethylpyrrole-3-carboxylic acid.
m-Phenylenediamine-5-carboxylic acid.
 Phenylethenyldianthranilic acid.
 β -Phenylethylcarbamic acid.
 γ -Phenyl- γ -ethylidenepyrotartaric acid.
 γ -Phenyl- γ -ethylitaconic acids.

Acids. See :—

Phenylethyl*di*thiocarbamic acid.
 β -Phenylglutaranilic acid.
 Phenylglutaric acids.
 Phenylglycine.
 Phenylglycine-*o*-carboxylic acid.
 Phenylglycine-*o*-dicarboxylic acid.
 Phenylglycinehydroxamic acid.
 Phenylglycollic acid.
 Phenylhydrazine-*p*-sulphonic acid.
 3-Phenyl-1-indone-2-acetic acid.
d-Phenylitamic acid.
 4-Phenylitidinedicarboxylic acid.
 Phenylmethanebis-2:4- and -2:5-dimethylpyrrole-3-carboxylic acids.
 α -Phenyl- β -3-methoxy-6-amino- and -6-nitro-cinnamic acids.
 3-Phenyl-5-methylfurfuran-2:4-dicarboxylic acid.
 Phenylmethylglycine.
 5-Phenyl-3-methyl*cyclo*hexan-3-ol-1-one-4:6-dicarboxylic acid.
 4-Phenyl-6-methyl-1:2-pyrone-5-carboxylic acid.
 3-Phenyl-5-methylpyrrole-4-carboxylic acid.
s-Phenylmethylsuccinic acid.
 Phenylmethyl*di*thiocarbamic acid.
 1-Phenyl-5-methyl-1:2:3-triazole-4-carboxylic acid.
 2-Phenyl-naphthalene-1:7-dicarboxylic acid.
 Phenyl- β -naphthylamine-6-sulphonic acid.
 Phenylnitrocinnamic acids.
 Phenylisotonitrosoglycine.
 Phenylloxamic acid.
 Phenyloxyarsinodiarylcaboxylic acids.
 Phenylparaconic acid.
 Phenylphthalamic acid.
 α -Phenylpropane-*aa* γ -tricarboxylic acid.
 Phenylpropionic acid.
 Phenylpropionic acid.
 Phenylpyrazolecarboxylic acid.
 4-Phenylpyrazole-3:5-dicarboxylic acid.
 3-Phenylpyridine-2:6-dicarboxylic acid.
 6-Phenyl-2-pyridylacrylic acid.
 2-Phenylpyrimidine-6-carboxylic acid.
 Phenylpyrrole-2-mono- and -2:5-dicarboxylic acids.
 3-Phenylpyrrole-4-carboxylo-5-acetic acid.
 Phenylsemicarbazidedicarboxylic acid.
 Phenyl*di*thiocarbazine acid.
 Phenylthiocyanoacetic acid.
 Phenylthiocyanomalonic acid.
 Phenyltolylethersulphonic acids.
 1-Phenyl-1:2:3-triazolecarboxylic acids.

Acids. See:—

Phenyltrimethylenedicarboxylic acid.
 Phloroglucinolcarboxylic acid.
 Phosphomannitic acid.
 Photosantonie acid.
 Phthalamic acid.
 Phthalhydroxylic acid.
 Phthalic acids.
 Phthaliminoamylmalonic acid.
 Piceapimaric acid.
 Picipimaric acid.
 Picipimarolic acids.
 γ -Picoline-3:5-di- and -tetra-carboxylic acids.
 Picolinic acid.
 Picric acid.
 Picrolicenic acid.
 Pilocarpic acid.
*iso*Pilocarpic acid.
 Pilocarpoic acid.
 Pilomalic acid.
 Piluvic acid.
 Pinelic acid.
 Pinenolglycuronic acid.
 Piperidine-1-acetic acid.
 Piperidinedicarbamie acid.
 Pivalic acid.
 Propaldehyde- $\beta\beta$ -disulphonic acid.
 Propanedicarboxylic acid.
 Propanetetracarboxylic acid.
 Propanetricarboxylic acids.
*iso*Propenyltrimethylenedicarboxylic acid.
 Propionic acid.
 Propionylacetoacetic acid.
*iso*Propyl*iso*amylacetic acid.
*iso*Propyl*iso*butylsuccinic acid.
 4-*iso*Propyldihydroresorcylic acid.
 Propylenedicarboxylic acid.
 Propylenepentacarboxylic acid.
 Propylenetetracarboxylic acid.
 Propylenetricarboxylic acids.
 β -*iso*Propylglutaric acid.
 β -*iso*Propylheptic acid.
 Propylidenebisacetoacetic acid.
*iso*Propyllevulic acid.
 Propylmalonamic acid.
 4-*iso*Propylphenyldihydro-2-picolone-5-carboxylic acid.
*iso*Propylsuccinanic acid.
*iso*Propylsuccinic acid.
*iso*Propyltrimethylenedicarboxylic acid.
 Protalbic acid.
 Protelemic acid.
 Protocatechuic acids.
 Protolichestic acid.
 Pulegenic acid.
 Pulegolacetic acid.
 Purpurogallincarboxylic acid.
 Pyrazolecarboxylic acids.
 Pyrazolone-3-acetic acid.

Acids. See:—

Pyridazyl-3-*p*-benzoic acid.
 Pyridinecarboxylic acids.
 Pyridine-2:3-dicarboxylic acid.
 Pyridine-3:4:5-tri- and -penta-carboxylic acids.
 Pyridoylacetic acid.
 2-Pyridoylaminoacetic acid.
 2-Pyridoylthyacetic acid.
 β -2-Pyridoylpropionic acid.
 Pyridylacrylic acid.
 2-Pyridylbromopropionic acids.
 Pyridylchlorohydroxyquinolsulphonic acid.
 3-Pyridylglycine-4-carboxylic acid.
 2-Pyridyl- β -propionic acid.
 Pyridyltruxillic acids.
 Pyrimidine-4:6-dicarboxylic acid.
 Pyrindanedionecarboxylic acid.
 Pyrogallolsulphonic acid, triethylether.
 Pyromeconic acid.
 Pyromucic acid.
*iso*Pyromucic acid.
 Pyrroacemic acid.
n-Pyrotartaric acid.
 Pyrrolecarboxylic acids.
 2-Pyrrolidinedicarboxylic acid.
 Pyruvic acid.
 Pyruvylphenylhydrazonohydroxamic acid.
 Pyruvylpyruvic acid.
 Quinolinic acid.
 Rhammonic acid.
 Rufigallic acid.
 Sabinolglycuronic acid.
 Sabinolglycuronic acid.
*iso*Saccharic acid.
 Salicylglycollic acid.
 Salicylhydroxamic acid.
 Salicylic acid.
*iso*Salicylic acid.
 Sorbic acid.
 Styrylmethanebis-2:5-dimethylpyrrole-3-carboxylic acid.
 Succinic acid.
 Sulphanilic acid.
 Sulphoacetic acid.
m-Sulphobenzoic acid.
 Sulphocampholenecarboxylic acid.
 Sulphohydroxamic acids.
 Sulphosalicylic acid.
 Sylvic acid.
 Tanacetonedicarboxylic acid.
 Tariric acid.
 Tartaric acid.
 Terephthalic acid.
 Terpenylic acid.
 Tetrahydroquinolinecarboxylic acids.
 Tetrahydroxyhexoic acid.
 Tetrahydroxysylvic acid.
 Tetrahydroxyvaleric acid.
 Tetramethyl*d*iaminoacetic acid.

Acids. See:—

Tetramethyldiaminodiphenylmethyl-
dithiocarbamic acid.
Tetramethyldiaminomalononic acid.
Tetraoxysilylic acid.
Tetronic acid.
diThiocarbamic acid.
Thioeyanic acid.
 α -Thiophenecarboxylic acid.
Thujamenthoketonic acid.
Thujonehydrateglycuronic acid.
o-Toluenesulphonic acid.
Toluene-*p*-sulphonic acid.
Toluic acids.
o-Toluidinoacrylic acid.
Toluidinomethylenemalononic acids.
p-Toluidinophosphamic acid.
p-Toluoyltartaric acid.
o-Tolylallophanic acid.
Tolyl-2:5-dimethylpyrrole-3:4-dicarboxylic acids.
Tolylenebis-2:5-dimethylpyrrole-3:4-dicarboxylic acids.
 β -*p*-Tolylglutaranilic acid.
 β -*p*-Tolylglutaric acid.
p-Tolyl-*m*-hydroxyphenazinesulphonic acid.
p-Tolyl- α -naphthylaminesulphonic acid.
o-Tolylloxamic acid.
Tolylloxaminosulphonic acids.
o-Tolylphthalamic acid.
Tolylthioglycollic acids.
Tolylthiohydantoic acids.
Triacetylgalactonic acid.
Tribenzylamine-*m*-tricarboxylic acid.
Triearballylic acid.
Triethylbenzenesulphonic acids.
Trihydroxybutyric acid.
 $\alpha\beta\gamma$ -Trihydroxy- $\alpha\delta$ -diphenylvaleric acid.
2:3:8-Trihydroxynaphthalene-6-sulphonic acid.
Trimethylenecarboxylic acid.
Trimethylenetetracarboxylic acid.
Trimethylenetricarboxylic acid.
Trimethylitamic acid.
2:3:4-Trimethylnicotinic acid.
Trimethylparaconic acid.
Trimethylpentane- $\beta\epsilon$ -olidoic acids.
Trimethylpentanolic acid.
Trimethylquinolinic acid.
Trimethylsuccinic acid.
Triphenylmethanesulphonic acid.
Triticonucleic acid.
Tropic acids.
 α -Truxillic acid.
Tyrosine.
Undecic acids.
Urano-malic and -tartaric acids.
Uric acids.
Usnaric acid.

Acids. See:—

Usnic acids.
Usnidic acid.
Valeric acids.
*iso*Valerylacetic acid.
*iso*Valerylacetoacetic acid.
Variolaric acid.
Veratric acid.
Vinylacetic acid.
Vinylacrylic acid.
Xanthic acid.
Xanthine-4:5-dicarboxylic acid.
Xylenedicarboxylic acid.
m-Xylidinomethylenemalononic acid.
l-Xylonic acid.
Xylthiolhydanitoic acids.

Acids. See also Alkyloxy-acids, Amino-acids, Hydroxy acids, Ketonic acids, Lactonic acids and Pseudo-acids.

Aconitic acid (*propylenetricarboxylic acid*), *mono*- and *di*-cyano-, and their sodium derivatives, ethyl esters (ERRERA and PERCIABOSCO), A., i, 116.

*iso***Aconitic acid**, ethyl ester, action of halogen-substituted esters of fatty acids on (GUTHZEIT and ENGELMANN), A., i, 742.

Acridine syntheses by means of *o*-aminobenzyl alcohol (ULLMANN and BAEZNER), A., i, 694.

derivatives from 1-arylaminoanthraquinones (FARBENFABRIKEN VORM. F. BAYER & Co.), A., i, 501.

methiodide, action of alkalis on (PICKET and PATRY), A., i, 644.

Acridine, 5-bromo- and 5-chloro- (KALLE & Co.), A., i, 311.

5-bromo-, 5-chloro-, and 5-iodo-, and their salts (EDINGER and ARNOLD), A., i, 181.

9-iodo- (KALLE & Co.), A., i, 495.

Acridone, tetranitro- (EDINGER and ARNOLD), A., i, 181.

Acyl chlorides, behaviour of certain, towards agents which eliminate hydrogen chloride (WEDEKIND), A., i, 739.

Acylamines, production of (DUNLAP), A., i, 756.

Acyleyanoacetic acids, esters, action of, on diazonium and tetra-azonium chlorides (FAVEL), A., i, 406.

Acyl groups, intramolecular migration of (WISLICENUS and KÖRBER), A., i, 72.

Acyliminothiocarbonic esters, and **Acylthiocarbamic acids**, action of phenylhydrazine on (WHEELER and BEARDSLEY), A., i, 502.

Acyl-thio- and - ψ -thio-carbamides, molecular rearrangement of unsymmetrical into the isomeric symmetrical (WHEELER), A., i, 444.

Additive products, law governing the formation and decomposition of (MICHAEL and MIGHILL), A., i, 129.

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Adenine, physiological action of (SCHITTENHELM), A., ii, 617.

Adipic acid (*butanedicarboxylic acid*), α -*di*bromo-, ethyl ester (WILLSTÄTTER and LESSING), A., i, 561.

Adipic acids, α - and β -, distinction between (WALLACH and SPERANSKI), A., i, 723.

Adiponitrile (HENRY), A., i, 141.

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Egririne-augite from the Ilmen Mountains (SUSCHTSCHINSKY), A., ii, 30.

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Afamyrin, **Afelemic acid**, and **Afelesen** (TSCHIRCH and CREMER), A., i, 813.

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Association in benzene solution, influence of temperature on (INNES), T., 682; P. 1902, 26.

Affinity constants of nitroamines and isonitroamines (HANTZSCH and BUCHNER), A., i, 209.
of organic acids, influence of constitution on the (WEGSCHEIDER), A., ii, 494.

Affinities, neutral (SPIEGEL), A., ii, 248.
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Residual affinity, part played by, in the formation of substitution derivatives (ARMSTRONG and HORTON), P., 1901, 246.

Dilution law, Ostwald's (VAUBEL), A., ii, 388.

Mass law, limitations of the (BANCROFT), A., ii, 496.

Chemical reactions, instantaneous, and the theory of electrolytic dissociation (KAHLENBERG), A., ii, 301.
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Catalytic actions (RUFF), A., ii, 13.
lecture experiments illustrating various types of (NOYES and SAMMET), A., ii, 498.
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Catalysis (OSTWALD), A., ii, 197.
of hydrazine (TANATAR), A., ii, 386, 495.
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Pseudocatalysis (ENGLER and WÖHLER), A., ii, 127.

Chemical equilibrium, between different degrees of oxidation (MAZZUCHELLI), A., ii, 119.
simultaneous, and the relations between thermodynamics and velocity of reaction of homogenous systems (WEGSCHEIDER), A., ii, 9.
in the system $\text{Bi}_2\text{O}_3\text{—N}_2\text{O}_5\text{—H}_2\text{O}$ (RUTTEN), A., ii, 386.
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conditions of, of deliquescent and hygroscopic salts of copper, cobalt and nickel (HARTLEY), A., ii, 197.
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Equilibrium constants of chemical reactions, method of calculating (FINDLAY), A., ii, 386.

Hydrolysis of esters of carboxylic and sulphonic acids (WEGSCHEIDER), A., ii, 493.
of nitrohydroxylaminic and sulphohydroxamic acids (ANGELI, ANGELICO, and SCURTI), A., i, 765.

Distribution coefficient, application of, to determine the relative affinities of acids (DAWSON and GRANT), T., 513; P., 1902, 68.

Ratio of distribution of acetic acid between chloroform and water (DAWSON), T., 522; P., 1902, 69.

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Ratio of distribution of a base between two acids, method of determining (DAWSON and GRANT), T., 512; P., 1902, 68.

Partition coefficients, state of dissolved compounds deduced from (HANTZSCH and VAGT), A., ii, 8.
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Velocity of coagulation of colloidal silicic acid (FLEMMING), A., ii, 646.

Velocity of combination of heterocyclic compounds with alkyl bromides (MENSCHUTKIN), A., ii, 493.

Velocity of decomposition of ammonium nitrite (ARNDT), A., ii, 64.
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Velocity of electrolytic decomposition of oxalic acid in sulphuric acid (ÅKERBERG), A., ii, 488.

Velocity of enzyme action (BROWN), T., 374; P., 1902, 41.

Velocity of esterification of α -, β -, γ -, and δ -halogen derivatives of fatty acids (LIGHTY), A., i, 201.
of the two dibenzoylmestyleneic acids (MILLS and EASTERFIELD), T., 1318; P., 1902, 168.

Velocity of formation of simple ethers (ROSENFELD-FREIBERG), A., ii, 492.

Velocity of hydration in some inorganic reactions, cause of the influence of positive and negative catalysers on the (ROHLAND), A., ii, 601.

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Velocity of hydrolysis of acetylated monoses and bioses (KREMAN), A., i, 712.

of starch by diastase (BROWN and GLENDINNING), T., 388; P., 1902, 43.

Velocity of intramolecular rearrangement in halogen-acetanilides (BLANKSMA), A., ii, 646.

Velocity of inversion (KULGREN), A., ii, 647.

of sucrose (BROWN), T., 376; P., 1902, 41; (v. LIPPMANN), A., i, 84; (HENRI), A., ii, 127.

AFFINITY, CHEMICAL :—

Velocity of inversion of sucrose by sucrase, influence of the concentration, of pressure, of neutral salts, and of sodium chloride on (HENRI), A., i, 712.

Velocity of oxidation of chromic hydroxide (ANTONY and PAOLI), A., ii, 661.

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- Alcohols, lower**, properties of mixtures of, with benzene, and with benzene and water (YOUNG and FORTEY), T., 739; P., 1902, 105.
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Alcohols and Phenols. See also:—
7-Acetoxy-2-phenyl-4-benzyl-1:4-benzopyranol.

4-Acetylaminophenol.

Acetylcarbinol (*acetol*).

Allyl alcohol.

β -Allylbenzene glycol.

Amyl alcohols.

Anthrakgallol.

Anthrals.

Arabitol.

Aspidinol.

Benzhydrol.

Benzhydryl-5-fluorenol.

1:4-Benzopyranols.

4-Benzoylaminophenol.

Benzoylthymol.

6-Benzoyl-1:2:4-xylenol.

6-Benzoyl-1:4:2-xylenol.

Benzyl alcohol.

Boletol.

Borneols.

Butyl alcohols.

Butylene chlorohydrins.

α -*iso* Butyl- β -isopropyltrimethylene glycol.

Camphanlycarbinol.

Camphenylcarbinol.

Camphyl glycols.

Catechol.

*iso*Chavibetol.

Chlorohydrins.

Cholesterols.

Chrysanthrol.

Cineol.

Cresols.

ψ -Cumenol.

Decinyl alcohol.

Decyl alcohol.

$\alpha\gamma$ -Decylene glycol.

Dehydrocamphylcarbinol.

Dehydromenthylcarbinol.

Dehydropyrodynpinacolyl alcohol.

Dibutyl alcohol.

Diethylcarbinol.

Diheptyl alcohol.

Dihydroisophoryl glycols.

1:5-Dihydroxyanthranol.

Dihydroxydibenzylmesitylene.

Dihydroxy-2:4-diphenyl-1:4-benzopyranols.

2:4'-Dihydroxydiphenylmethane.

Dihydroxyhexane.

Dihydroxyhydroanthranols.

Alcohols and Phenols. See:—

Dihydroxymethyl-*tert*-butylallylcarbinol.

2:3-Dihydroxynaphthalene.

Dihydroxynonane.

9:10-Dihydroxyphenanthrene.

Dihydroxy-2-phenyl-1:4-benzopyranols.

Dihydroxy-2-phenyl-4-benzylidene-1:4-benzopyranols.

Dimethoxyanhydroglycogallol.

$\alpha\beta$ -Dimethoxydihydroisoeugenol.

2:4-Dimethoxydimethyl-3-methyl- and -5-bromomethyl-1-phenol.

3:5-Dimethoxy-2-methylcarbinol-6-aminophenol.

Dimethoxy-2-phenyl-4-benzylidene-1:4-benzopyranols.

Dimethylisocamylcarbinol.

Dimethylheptenol.

$\beta\epsilon$ -Dimethylhexane- $\beta\epsilon$ -diol.

1:3-Dimethylcyclohexanol.

Dimethylhydroxyethylamine.

2- α -Dimethylethylquinoline.

2-Dimethylolmethyl-3-methylquinoline.

Dimethylpentadecylcarbinol.

1:3-Dimethylcyclopentanol.

Dimethylpinacene.

Dinaphthapyranol.

Dinaphthaxanthhydrol.

Dinaphthylene glycol.

2:2'-Diphenol.

Diphenylacetylenecarbinol.

Diphenyl-*p*-anisylcarbinol.

$\alpha\epsilon$ -Diphenyl- α -pentanol.

Dipicraminophenol.

2:5-Dipropoxyquinol.

Durylene glycol.

Erythritols.

Ethanolmethylamine.

Ethyl alcohol.

Ethylcatechol.

Ethylene glycol.

Ethylphenols.

3-Ethylpiperidyl-4-ethanol.

3-Ethylpyridyl-4-ethanol.

3-Ethyl-4-pyridylpropanediol.

Eugenol.

*iso*Eugenol.

Fenchyl alcohol.

Furfuryl alcohol.

α -Furfuryl- β -octinyl alcohol.

α -Furfuryl- β -octinylcarbinol.

Furfurylphenylacetylenecarbinol.

Geraniol.

Glucos-*o*-hydroxyphenylethylcarbinol.

Glycerol.

Guaiacol.

γ -*iso*Heptanol.

Heptylene glycol.

Hexahydroxydiphenyl.

Alcohols and Phenols. See:—

β e-Hexanediol.
 Hexyl alcohols.
 Hexylene glycol.
*p-cyclo*Hexylphenol.
 Hydro- α -anthrol.
 Hydrobenzoin.
 Hydroquinizarol.
p-Hydroxybenzyl alcohol.
 1- α -Hydroxybenzyl-4-methyl*cyclo*-hexanol-2.
 4- α -Hydroxybutyl-1:3-dimethylbenzene.
 2- α -Hydroxybutyl-1:3:5-trimethylbenzene.
 1-Hydroxycamphene.
 Hydroxy- ψ -cumyl alcohols.
 Hydroxy- ψ -cumylene *m*-glycol.
 Hydroxydibenzylanthracene.
 α -Hydroxydihydroisoeugenol.
 7-Hydroxy-2-*p*-dimethylanilinonaphthalene.
 4- α -Hydroxyethyl-1-ethylbenzene.
 4- α -Hydroxyethyl-1-mono- and -1:3-dimethylbenzenes.
 Hydroxyethylnitrocarbamide.
 α -Hydroxy-*p*-ethylphenol.
 α -Hydroxyhexadecyl-1:3-di- and -1:3:5-tri-methylbenzenes.
 Hydroxyhydroanthranol.
 Hydroxymesitylene.
 α -Hydroxy- β -methoxydihydroisoeugenol.
 Hydroxyphenanthrenes.
 Hydroxyphenoxozone.
 7-Hydroxy-2-phenyl-1:4-benzopyranol.
 7-Hydroxy-2-phenyl-4-benzylidene-1:4-benzopyranol.
 7-(or 5-)Hydroxy-2-phenyl-4-benzylidene-5-(or 7-)methyl-1:4-benzopyranol.
o-Hydroxyphenylethylcarbinol.
 Hydroxyphenylpyridazine.
 2-Hydroxy-3-phenylquinoxaline.
 4- α -Hydroxypropyl-1-methylbenzene.
 2- α -Hydroxypropyl-1:3:5-trimethylbenzene.
 Hydroxytetraphenylmethane.
 2-Hydroxy-1:3:5-trimethylbenzene.
p-Hydroxytriphenylcarbinol.
p-Hydroxytriphenylmethane.
 Hydroxy-xylene.
d-Linalol.
 Mannitol.
 Menthol.
 Menthylcarbinol.
 Menthyl glycol.
 2:3-Methoxynaphthol.
 3-Methoxyphenol.
 7-Methoxy-2-phenyl-1:4-benzopyranol.

Alcohols and Phenols. See:—

7-Methoxy-2-phenyl-4-benzylidene-1:4-benzopyranol.
 7-(or 5-)Methoxy-2-phenyl-4-benzylidene-5-(or 7-)methyl-1:4-benzopyranol.
p-Methoxytriphenylcarbinol.
 Methyl alcohol.
m-Methylbenzenyl-*p*-amino-*m*-thioxylene.
 Methyl*di*bromoxyloquinol.
 Methylenebisdimethylphloroglucinol.
 Methylenebutylcarbinol.
 1-Methyl-3-ethyl*cyclopentanol*-3.
 Methylheptenol.
 Methyl- β -heptylcarbinol.
 Methylheptylcarbinol.
 Methylnonylcarbinol.
 Methyl- β -octylcarbinol.
 2- α -Methylloethyl-3-methylquinoline.
 β -Methylpentane- $\beta\beta$ -diol.
 Methyl*cyclopentanol*s.
 Methylphloroglucinol.
 Methylpropylcarbinol.
 ϵ -Methyl- β -isopropyl- $\alpha\gamma$ -hexylene glycol.
 1-Methyl-4- ψ -quinol.
 Naphthols.
 Noninyl alcohol.
 Nonyl alcohol.
 Octenyl alcohol.
 Octyl alcohols.
 Octylene glycols.
 Pentaerythritol.
 Phenanthraquinol.
 2-Phenanthrol.
 Phenol.
 Phenols.
 ψ -Phenols.
 Pheno- α -naphthaxanthhydrol.
 Phenylacetylenemethylcarbinol.
 5-Phenyl-3:5-dimethylphenonaphthacridol.
 α -Phenyl- β -heptyl alcohol.
 1-Phenyl-3-methylbenziminazoleol.
 Phenylmethylpropylcarbinol.
 α -Phenyl- β -octyl alcohol.
 Phloroglucinol.
 Phytosterol.
 Pinacone.
 Propyl alcohols.
*cyclo*Propyldimethylcarbinol.
 Propylene glycol.
 Pulenol.
 Pyridyl*dichloro*hydroxyquinol.
 2-Pyridylmethylcarbinol.
 2-Pyridylpropanediol.
 Pyrodypuopinacol alcohol.
 Pyrogallol.
 Quinol.
 ψ -Quinols.
 Resorcinol.

Alcohols and Phenols. See:—

Rhamnitol.
 Sabinene alcohol.
 Saligenin.
 Sitosterol.
 Storesinol.
 Styresinol.
 Styrylmethylcarbinol.
 Terpene alcohols.
 $\Delta^{8,9}$ -Terpen-1-ol.
 Terpineols.
 Tetra-acetylgluco-*o*-hydroxyphenyl-ethylcarbinol.
 Tetra-acetylmannitol.
 Tetramethyldiaminobenzhydrol.
 1:3:4:5-Tetramethylbenzimidazoleol.
 Thymol.
 Toluquinol.
p-Tolylamino-*m*-hydroxybenzyl alcohol.
 Trianisylcarbinol.
sec-Tricapryl alcohol.
 1:8:9-Trihydroxyhexahydrocymene.
 2:3:8-Trihydroxynaphthalene.
 1:8:9-Trihydroxyterpane.
 Trihydroxyterpineol.
 3:5:5-Trimethyl- $\Delta^{2,6}$ -dihydrocatechol.
 Trimethylenecarbinol.
 2:4:4-Trimethylcyclohexanol.
 Triphenylcarbinol.
 Tripropylcarbinol.
 Undecane- $\beta\gamma$ -diol.
 Undecyl alcohol.
p-Vinylphenol.
 Xanthhydrol.
 Xylenols.
 Xyloquinhydrone.
 Xyloquinols.

Alcohols. See also Glycols.

Paraldehyde, action of, on *o*-nitroso-benzoic acid (CIAMICIAN and SILBER), A., i, 378.

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Aldehydes of the acetic series, synthesis of, by means of nitromethane (BOUVEAULT and WAHL), A., i, 591.

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acetates from (FARBENFABRIKEN VORM. F. BAYER & Co.), A., i, 102.

Aldehydes. See also:—

Acetaldehyde.

Acetalol.

Aldol, C₁₃H₁₆O₂.

Anisaldehyde.

Aromadendral.

Beuzaldehyde.

Benzylidenedivanillin.

Berberinaldehyde.

Bromal.

Butaldehydes.

Camphenaldehyde.

Carbonylchloroaldehydes.

Chloral.

Aldehydes. See:—

- Cinnamaldehyde.
*cyclo*Citrals.
 Cuminaldehyde.
n-Decaldehyde.
 3:4-Dimethoxyhydratropaldehyde.
 Dimethoxymethylenedioxyhydratropaldehyde.
p-Dimethylaminobenzaldehyde.
 Diphenylacetaldehyde.
 $\alpha\beta$ -Diphenyl- $\alpha\alpha$ -diphenylthioethane-2-al.
m-Ethoxybenzaldehyde.
 Formaldehyde.
 Furfuraldehyde.
 Heptaldehyde.
*iso*Hexaldehyde.
 Hydroxyaldehydes.
 Hydroxybenzaldehydes.
 Hydroxymethylsalicylaldehyde.
 Malonic dialdehyde.
 Mesoxalic semi-aldehyde.
 Metaformaldehyde.
o-Methoxybenzaldehyde.
p-Methoxyhydratropaldehyde.
 Methylglycerinaldehyde.
 2-Methyl-5-*isopropyl*-tetra- and -hexahydrobenzaldehyde.
 Methylsalicylaldehyde.
n-Nonaldehyde.
n-Octaldehyde.
o-Nanthaldehyde.
 Paraldehyde.
 Paraldol.
 β -Phenylpropaldehyde.
 Piperonal.
 8-Quinolinaldehyde.
 Succinaldehyde.
 Succindialdehyde.
 Tolualdehydes.
 2:2:4-Trimethyl-tetra- and -hexahydrobenzaldehyde.
 Trioxymethylene.
*iso*Valeraldehyde.
 Vanillin.
- β -Aldehydic acids**, optically active esters of (LAPWORTH and HANN), T., 1491, 1499; P., 1902, 144, 145.
- Aldehydotrichloroquinodichloride**, and its oxime and semicarbazone (BILTZ and KAMMANN), A., i, 162.
- p*-Aldehydohydrazobenzene**, anilide of (ALWAY), A., i, 697.
- 2-Aldehydo-5:6-methoxybenzoyl chloride** (*opianic chloride*) (MEYER), A., i, 31.
- 8-Aldehydonaphthoic acid** (*naphthaldehydic acid*), and its methyl ester (ZINK), A., i, 159.
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- Aldol**, $C_{13}H_{16}O_2$, from cinnamaldehyde and isobutaldehyde (MICHEL and SPITZAUER), A., i, 292.
- Aldol** (*acetal*al), viscid, and **Paraldol** (NOWAK), A., i, 260.
- Alga**, green, assimilation of carbon by a (CHARPENTIER), A., ii, 419.
- Algæ**, the wax of, and its relation to petroleum (KRAEMER and SPILKER), A., i, 333.
 fresh-water, effect of methylal on (BOUILHAC), A., ii, 40.
- Alinit**. See Agricultural Chemistry.
- Alizarin** methyl ether (GRAEBE and ADERS), A., i, 43.
- Alizarin**, α -amino-, acetyl and benzoyl derivatives of (SCHULTZ and ERBER), A., i, 299.
 β -amino-, dibenzoyl derivative of (SCHULTZ and ERBER), A., i, 299.
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- Alkali**, reaction of, with chloral hydrate (BÖTTGER and KÖTZ), A., i, 659.
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- Alkali carbonates**, action of higher fatty acids on (KLIMONT), A., i, 132.
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- Alkalimeter**, new form of (DAVIS), A., ii, 428.

Alkalimetry, gasometric method for (RIEGLER), A., ii, 696.

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Alkali-proteid, globulin as (WOLFF and SMITS), A., i, 67.

Alkalis, normal, in acidimetry (JUNGCLAUSSEN), A., ii, 46.

solid, action of, on aromatic aldehydes (RAIKOW and RASCHTANOW), A., i, 721.

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estimation of, in Portland cement and natural cements (STILLMAN), A., ii, 175.

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Alkaloidal salts, extraction of, from aqueous solutions (SPRINGER), A., ii, 542.

Alkaloids of *Argemone mexicana* (SCHLOTTERBECK), A., ii, 101.

of *Corydalis cava* (GADAMER, ZIEGENBEIN, and WAGNER), A., i, 306, 391.

of *Solanum chenopodium* (SAGE), A., ii, 282.

of *Stylophorum diphyllum* (SCHLOTTERBECK and WATKINS), A., ii, 101.

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estimation of, in kola nut and its fluid extracts (WARIN), A., ii, 483.

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Alkaloids. See also:—

Adenine.

Anhydrolupinine.

Arecaidine.

Arecoline.

Arginine.

Atropine.

Atroscine.

Alkaloids. See:—

Benzoyllupinine.

Berberine.

Brucidine.

Brucine.

Caffeine.

Canadine.

Cevadine (*cevatrine*).

Choline.

Cinchonidine.

Cinchonifine.

Cinchonine.

*allo*Cinchonine.

*iso*Cinchonines.

Cinchotine.

Cinnamylquinine.

Cocaine.

l-Coniine.

*iso*Coniine.

*iso*Corybulbine.

Corycavamine.

Corycavine.

Corydaldine.

Corydaline.

Corydine.

Corytuberine.

Cotarnine.

Creatine.

Creatinine.

Cynoglossine-Riedel.

Cystine.

Dehydrocorydaline.

Dihydroberberine.

Dimethyl-lupuline.

3:8-Dimethylxanthine.

Diphylline.

Eegonine.

Epiosine.

8-Ethylxanthine.

Eucaines.

Guanine.

Histidine.

Hydroxycinchotine.

Hyosine.

Ibogaine.

Ibogine.

Ipohine.

Laudanine.

d-Lupanine.

Lupinine.

Lysatinine.

Lysine.

*allo*Meroquinine.

1-Methyl-*l*-coniine.

n-Methylgranatanine.

Methyl-lupuline.

Methylmorphimethines.

8-Methylxanthine.

Morphigenine.

Morphine.

Nicotianine.

Nicotine.

Alkaloids. See:—

Oscine.
 Oxyecotarnine.
 Oxymorphine.
 Physostigmine.
 Pilocarpine.
 8-*iso*Propylxanthine.
 Protopine.
 Pyridinecholine.
 Quinidine.
 Quinine.
 Salicylylquinidine.
i-Scopolamine.
 Strychnidine.
 Strychnine.
 Stylopine.
 Tanacetine-Riedel.
 Tetrahydrobrucine.
 Tetrahydrostrychnine.
 1:3:8-Trimethylxanthine.
 Tropine.
 Veratrine.
 Yohimbine.
 Xanthine.

See also Ptomaines.

Alkyl bromides, velocity of combination of, with heterocyclic compounds (MENSCHUTKIN), A., ii, 493.

Alkylacetylacetonates, action of, on diazonium and tetra-azonium chlorides (FAVREL), A., i, 508.

Alkylamines, microchemical detection of (BEHRENS), A., ii, 634.

Alkylcyanoacetamides, preparation of (GUARESCHI), A., i, 819.

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Alkylhydrazines, preparation of (STOLLÉ), A., i, 57.

Alkylmalonic acid, esters, action of ammonia on (FISCHER and DILTHEY), A., i, 269.

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Alkyloxy-acids, reactivity of (v. WALTHER), A., i, 528.

Alkyloxy group, velocity of substitution of a halogen by an, in aromatic halogen nitro-compounds (LULOFS), A., i, 87.

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Aloins, constitution of (LÉGER), A., i, 685.

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Acetyl-mono- and -di-glucosamine.
Acetyl-*m*-hydroxyphenyl-*p*-tolyl-amine.
Acetylmethylene-*p*-phenylenedi-amine.
Acetylphenylhydroxylamine.
Acy-aminines.
Alkylamines.
Allylamine.
Anhydro-acetyl- and -benzoyl-9-amino-10-hydroxyphenanthrenes.
Anhydroformaldehydeaniline.
Aniline.
9-Anilino-3:5-*d*-aminophenazothionium chloride.
ε-Anilinoamylphthalimide.
Anilino-citraconanil.
Anilino-dimethylpyrimidines.
2-Anilino-hydrocarboxyl.
α-Anilinomethylsuccinyl.
Anilino-β,β₂-naphthaphenazine.
Anilino-naphthaphenazothionium anhydride.
3-Anilino-phenazothionium salts.
3-Anilino-phenazoxonium salts.
Anilino-phenylmethylenecamphoranil.
6-Anilino-3-phenyl-5-methylpyridazine.
3-Anilino-4-phenyl-5-triazolone.
Anisidines.
Anisole, *d*-amino-.
Anthragallolamine.
Anthraquinone, amino-.
Arylamines.
Benzaldehydeanilines.
Benzaldehyde-β-naphthylamine.
Benzaldehydesemicarbazine-2:4-nitro-amine.
Benzaldoxime, *d*-amino-.
Benzamidine.
Benzidine.
Benzophenoneaniline.
Benzoyl-*o*-aminodiphenylamine.
Benzoyldiphenylbenzenylamidine.
Benzoyl-*o*-flavaniline.
Benzylalkylanilines.
Benzylamine.
Benzylaniline.
Benzyl cyanides, amino-.
Benzyl-di-ethyl- and -propyl-amines.
Benzylethylaniline.
Benzylidene-*m*-aminoacetophenone, *m*-amino-.
Benzylideneaniline.
Benzylidenebenzidine.
Benzylidenedimethyl-*p*-phenylenedi-amine.

Amines. See :—

Benzylideneglucosamine.
Benzylidene-methyl- and -ethyl-amines.
Benzylidene-α-naphthylamine.
Benzylidene-*m*-nitroaniline.
Benzylidenetoluidines.
Benzyl-α-naphthylamine.
Benzyl-*p*-nitroaniline.
Benzyl-*o*-toluidine, 4-amino-.
Benzyl-*p*-toluidine.
Bisdinaphthaxanthoneamine.
Bis-2:4-*d*-nitrobenzylidenebenzidine.
Butanolamines.
*iso*Butyl-*o*-flavaniline.
Camphidine.
*iso*Camphoramine.
α-Carbaminethiobutyrilamide.
α-Carbaminethiolactanilide.
Carbonyl-2:2'-*d*-amino-4:4'-dimethyl-diphenyl.
Carbonyl-2:2'-*d*-aminodiphenyl.
Chitosamine.
Cinnamylidene-methyl- and -ethyl-amines.
Cumylidene-methylamine and -ethyl-amine.
Cumyl-methylamine and -ethylamine.
*iso*Dehydrothio-*m*-xylylidene.
Desylamine.
2:4'-Diacetoxybenzophenoneaniline.
Diamines.
3:4-Dianilino-β-naphthaphenazothionium anhydride.
Dianilino-phenazothionium chloride.
3:9-Dianilino-phenazoxonium chloride.
Di-*o*-anisylguanidine, amino-.
Dibenzoyl-*p*-aminodiphenylamine.
Dibenzoyl-*o*-toluidine.
Dibenzylallylamine.
Dibenzylamine.
Dibenzylhydrazine, *as*-*o*-*d*-amino-.
Dicarbanilino-carbanilindixyl-methylenediamine.
Dicarbanilindiphenylmethylenediamine.
Di-ψ-cumylformamidine.
3:4-Diethyl-*d*-aminotoluene.
Diethylaniline.
3:3'-Diethyl-diphenyl, 4:4'-*d*-amino-.
Diethyl-β-naphthylamine.
Diethyl-*o*-toluidine, 4-amino-.
Dihydrocampholene, α-amino-.
Dihydroxybenzylideneaniline.
Di-*p*-hydroxydiphenyl-*m*-phenylenedi-amine.
Di-9-hydroxyphenanthryl-10-amine.
3:7-Dimethylacridine, 2:8-*d*-amino-.
p-Dimethylaminoacetophenone, *o*-amino-.
p-Dimethylaminobenzylidene-*m*-aminoacetophenone.

Amines. See :—

p-Dimethylaminobenzylidene-*p*-nitro-aniline.
 Dimethyl-*p*-diaminodiphenylamine.
 Dimethyl*di*aminohexene.
 Dimethyl-*p*-amino-*m*- and -*p*-hydroxy-diphenylamine.
 2-Dimethylamino-12-methylpheno-1:2-naphthacridinium salts.
 3'-Dimethylaminopheno-3-amino-oxylazines.
 2-Dimethylaminopheno-1:2-naphth-acridine.
as-Dimethyl*di*aminophenotolazo-oxonium chlorides.
 Dimethylaminotolaminonaphthazo-oxonium hydride.
as-Dimethyl*di*aminotolonaphthazo-oxonium chlorides.
 3:4-Dimethyl*di*aminotoluene.
 Dimethylaniline.
 Dimethyldiethyl*di*aminophenotolazo-oxonium iodide.
 4:4'-Dimethyldiphenyl, 2:2'-*di*amino-.
 Dimethylhydroxyethylamine.
 Dimethyl- β -naphthylamine.
 1:3-Dimethyl-*m*-phenylenediamine.
 2:4-Dimethylpyridine, 6-amino-.
 Dimethylpyrimidines, amino-.
 2:4-Dimethylpyrimidylethylene-diamine.
 Dimethyl-*o*-toluidine, 4-amino-.
 Dimethyltoluidines.
 α -Dinaphthylamine.
 Di- β -naphthylformamidine.
 Di- β -naphthylguanidine, amino-.
 Diphenyl, 2:2'-*di*amino-.
 Diphenylamine.
 Diphenyl*tetra*-aminobenzene, *di*-amino-.
 Diphenylchlorophenylene-*p*-diamines.
 Diphenylformamidine.
 Diphenylguanidine, amino-.
 Diphenylmethane, *di*amino-.
 Diphenylmethylamine.
 Diphenylmethylenediamine.
 Diphenyl-4:6-*di*nitro-1:3-phenylene-diamine, *di*amino-.
 Diphenyloxyformamidine.
 Diphenyl-*p*-tolylaminotriazole.
 4:4-Dipyrimidylethylenediamine.
 Dithymolylamine.
 Di-*p*-tolyl*di*aminodihydroxydiphenyl-methane.
 Ditolylformamidine.
 Di-*p*-tolylguanidine, amino-.
 Ditolylmethylenediamines.
 Ditolylmethylenedihydroxyamines.
 Di-*p*-tolylloxyformamidine.
 Dixylylformamidines.
 Dixylylmethylenediamine.
 Dixylylmethylenedihydroxyamines.

Amines. See :—

Dixylyloxyformamidines.
 Ethanolmethylaniline.
 Ethenyl-3:4-tolylenediamine.
 Ethylamine.
 Ethylaniline.
 Ethylenediamine.
 Ethyl- β -naphthylamine.
m-Ethyltoluidine.
m-Ethyltolylenediamines.
 Fluorene, amino-.
 Fluorindine, C₂₆H₂₁N₅Cl₄.
 Formamidines.
N-Formyl- β -phenylhydroxylamine.
 Furfurylidene-methylamine and -ethylamine.
 Furfuryl-methylamine and -ethylamine.
 Glucosamine.
 Glycocylamine.
 Hexahydrobenzylamine.
 Hexahydro-*m*-tolylenediamine.
 Hexahydro-*m*-xylylenediamine.
*iso*Hexane, $\beta\beta$ -*di*amino-.
 Homocamphanylaniline.
 Homocamphenylaniline.
 Hydrindamine.
 Hydrocinnamyl-methyl- and -ethylamines.
p-Hydroxybenzaldehydeaniline.
 Hydroxy- ψ -cumylanilines.
 5-Hydroxydimethyl- α -naphthylamine.
 4-Hydroxydiethyl-*o*-toluidine.
 4-Hydroxydimethyl-*o*-toluidine.
 Hydroxydiphenylamine.
 Hydroxylamine.
 3-Hydroxymethyl-2-aminobenzylidene-*p*-nitroaniline.
 9-(or 10)-Hydroxyphenanthrene, amino-.
 5-*p*-Hydroxyphenyl-2-aminomethylpheno- $\alpha\beta$ -naphthacridine.
p-Hydroxyphenylethylamine.
 2- β -Hydroxy- β -phenylethylpyridine, *p*-amino-.
 3-Hydroxy-2-phenyl-6-(or 7-)methyl-quinoxaline, amino-.
p-Hydroxyphenyl- α -naphthylamine.
p-Hydroxyphenylpyridazine, amino-.
 Hydroxyphenylquinoxalines, amino-.
m-Hydroxyphenyl-*p*-tolylamine.
 Leucauramines.
 Lophine, amino-.
p-Methoxy-2-stilbazole, amino-.
 Mesitylene, *tri*amino-.
 Methylamine.
 2-Methylaminobenzyl-*p*-nitroaniline.
o-Methylaminodiphenylamine.
 Methylaniline.
 Methyl-bromo- and -chloro-ethylamines.
 Methyleneaniline.

Amines. See:—

Methylenebis(aniline.
Methylenediamine.
3:2-Methyleneimino-benzyl- and
-benzylidene-*p*-nitroanilines.
Methylheptylamine.
p-Methylhexahydrobenzylaniline.
4-Methylpheno- β -naphthaeridine, 3-amino-.
2-Methyl-5-*isopropyl*hexahydrobenzylamine, -aniline, -dimethylamine, and -diethylamine.
4-Methylpyrimidine, amino-.
4-Methylstilbazole, *p*-amino-.
Methyltoluidine.
1-Naphthol, 8-amino-.
Naphthylamines.
 α -Naphthyl dimethylamine.
Naphthylenediamines.
 α -Naphthylmethylamine.
 β -Nonylamine.
2:4:2':4'-Octamethyltetra-amino-ditolyl-5:5'-methane.
3-Oxyaminophenylphenazonium anhydride.
Pentanolamines.
Phenanthrene, amino-.
Phenanthrylamines.
Phenazoxone, 3:5-diamino-.
Phenetidine.
Pheno- α -aminocycloheptane.
Phenol, *o*-amino-.
Phenonaphthaeridine, amino-.
Phenoxozone, diamino-.
Phenyl β -diaminophenazine, amino-.
Phenyldicarbylamine.
Phenyldimethyl β -diaminophenotolazonium chloride.
Phenylenediamines.
Phenylenedicarbylamines.
m-Phenylene-1:3-dimethyldinitroamine.
 β -Phenylethylamine.
Phenylcyclohexane, *p*-amino-.
Phenylhydroxylamine.
Phenyl-2:4-lutidylalkine, *p*-amino-.
5-Phenyl-3-methyl-5:12-dihydrophenonaphthaeridine, 2-amino-.
5-Phenyl-3-methylphenonaphthaeridine, 2-amino-.
Phenylmethylnitroamine.
5-Phenyl-2-mono- and -di-alkylamino-3-methylphenonaphthaeridines.
5-Phenyl-2-mono- and -di-alkylamino-phenonaphthaeridines.
Phenylnitroamine.
Phenyl-2 phenanthrylamine.
5-(or 3-)Phenylpyrazole, amino-.
1-Phenyl-3-*p*-tolyl oxyformamidine.
Phthalylhydroxylamine.
Phthalyl-2:4-tolylenediamines.
Pipecoline, 1-amino-.

Amines. See:—

ϵ -Piperidinoamylamine.
Piperonylene-methyl- and -ethylamines.
Piperonyl-methyl- and -ethylamines.
Pyrazole, 4-amino-.
Pyridine, amino-.
Pyrimidine, amino-.
Pyrogallolaldehydeaniline.
Pyrrolidines, amino-.
Resorcinaldehydeaniline.
Salicylaldehydeaniline.
Stilbazole, amino-.
4:4'-Tetraethyl β -diaminodiphenylmethane.
4:4'-Tetramethyl β -diaminodiphenylmethane, 2-amino-.
2:8-Tetramethyl β -diamino-10-methyl-acridinium nitrate.
Tetramethyl β -diaminophenotolazonium chloride.
Tetramethyl β -diaminophenotoloxazine.
2:4-Tetramethyl β -diaminotoluene.
4:6-Tetramethyl β -diamino-*m*-xylene.
Tetramethyl-*m*-phenylenediamine.
2:2:5:5-Tetramethylpyrrolidine, 3-amino-.
Tetraphenylhydrazodicarbonamidine.
Thujamethylamine.
Toluidines.
p-Tolyl dicarbylamine.
Tolylenediamines.
6-Tolylhydroxylamine.
p-Tolyl- α -naphthylamine.
3-*p*-Tolylpyridazine, amino-.
Tribenzylamine.
1:2:3-Trihydroxybenzylideneaniline.
3:7-10-Trimethylacridinium salts, 2:8-diamino-.
5-(or 3-)Trimethylaminophenylpyrazole.
Trimethylenemethane, amino-.
Trimethylenetriethyltri-amine.
2:2:4-Trimethylhexahydrobenzylaniline.
Triphenylmethylamine.
Triphenylmethylamylamine.
Triphenylmethyl ethylamine.
Triphenylmethyl propylamine.
 β -Undecylamine.
Uracil, 4:5-diamino-.
Vinylamine.
m-Xylene, β -diamino-.
Xylenes, amino-.

Amino-acids from the hydrolysis of muscle (ÉTARD), A., i, 699.
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- Amino-acids** of the $C_nH_{2n+1}O_2N$ series, preparation of (KUTSCHER), A., i, 594.
- Amino-alcohols** (TORDOIR; STÉNON), A., i, 265.
 polyhydric, action of carbon disulphide on (MAQUENNE and ROUX), A., i, 694.
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- Amino-oximes**, reactions of (SCHIFF), A., i, 429.
- Aminosulphonic acids**, aromatic, iodo-derivatives of (KALLE & Co.), A., i, 716.
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 preparation of, from atmospheric nitrogen (HOYERMANN), A., i, 355.
 physical properties of aqueous solutions of (GOLDSCHMIDT), A., ii, 15.
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 gaseous, heat of solidification of (DE FORCRAND), A., ii, 379.
 liquid, latent heat of solidification of (DE FORCRAND and MASSOL), A., ii, 379.
 liquid and solid, heat of solution of (MASSOL), A., ii, 378.
 solid, latent heat of fusion of (MASSOL), A., ii, 378.
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 solubility of, in salt solutions, as measured by its partial pressure (ABEGG and RIESENFELD), A., ii, 309.
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 excretion of, in human urine (CAMERER), A., ii, 416.
 estimation of, in waters (THOMAS and HALL; EMMERLING), A., ii, 535.
 albuminoid and proteid, estimation of, in water (WINKLER), A., ii, 630.
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- Ammonio-chromium salts**. See under Chromium.
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- Ammonio-copper compounds**. See under Copper.
- Ammonium**, non-existence of, at -80° (MOISSAN), A., ii, 72.
 as direct source of nitrogen for plants (KOSSOWITSCH), A., ii, 684.
- Ammonium amalgam** (MOISSAN), A., ii, 71.
- Ammonium compounds**, constitution of (WERNER), A., ii, 554.
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- Ammonium** mercuric bromide, chloride, and chlorobromide (RAY), T., 648; P., 1902, 85.
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 chloride and iodide, electrolysis of, in solution in liquefied ammonia (MOISSAN), A., ii, 71.
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 influence of, on the vapour pressure of aqueous ammonia solution (PERMAN), T., 485; P., 1901, 261.
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 nickel chromate (BRIGGS), P., 1902, 255.
 haloids, crystallography of (SLAVÍK), A., ii, 561.
 nitrate, preparation of nitrogen from (MAI), A., ii, 69.
 nitrite, velocity of decomposition of (ARNDT), A., ii, 64.
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- persulphate, action of silver salts on solutions of (MARSHALL and INGLIS), A., ii, 561.
- sulphide, cause of the brown coloration of, in presence of a nickel salt (ANTONY and MAGRI), A., ii, 24.
- amidosulphinate (GOLDBERG and ZIMMERMANN), A., i, 738.
- amidosulphite, preparation and decomposition of (DIVERS and OGAWA), T., 504; P., 1902, 71.
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- quaternary, isomerism of (HANTZSCH and HORN), A., i, 277.
- dissociation of (WEDEKIND and OBERHEIDE), A., i, 277; (WEDEKIND and OECHSLEN), A., i, 392.
- iodides, organic, physiological action of (JACOB), A., ii, 620.
- thiocyanate and thiocarbamide, "dynamic isomerism" of (REYNOLDS and WERNER), P., 1902, 207.
- action of benzoic chloride on (BENSON and HILLYER), A., i, 27.
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 Apiose.
 Araban.
 Arabinoses.
 Arabitol.
 Cellobiose (*cellose*).
 Cellulose.
 Dextrins.
 Dextrose.
 Erythritol.
 β -Ethylgalactoside.
 Fructose.
 δ -Galactan.
 Galactose.
 Galactosidodextrose.
 Galactosidogalactose.
 Gelose.
 Gentiobiose.
 α -Glucoheptose.
 Glucose.
 Glucosidegalactose.
 Glucosone.
 Glycogen.
 Granulose.
 Hemicelluloses.
 Honey dextrin.
 β -Hydroxymethylerythrose (*apiose*).
 Ketoses.
 Lactose.
*iso*Lactose.
 Lævulose.
 Maltose.
 Mannan.
 Manneotetrose.
 Manninotriose.
 Mannitol.
 Mannose.
 Melibiose.
 Methylpentosan.
 Methyltetrose.
 Methyltriase.
 Oxycelluloses.
 Pentaerythritol.
 Pentanetriolone.

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Pentosans.
 Pentoses.
 Potato-starch (*granulose*).
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Anthrarufin ethyl ethers.
Anthrondimethylacetal.
*iso*Apiole.
Benzeneazobromo- α -naphthol ethyl ether.
6-Benzoyl-1:2:4- and -1:4:2-xenol methyl ethers.
Benzylidene- β -dinaphthyl oxide.
Butenylphenetole.
4-*iso*Butoxy-1- α -hydroxypropylbenzene.
Butyracetal.
Butyrylphenetole.
Cresols, methyl ethers of.
Crotonacetal.
 ψ -Cumenol ethyl ether.
Dianisylphenylmethane.
Dichrysarobin methyl ether.
1:3-Diethoxybenzene.
Diethoxydimethyl ether.
2:4'-Dihydroxydiphenylmethane dimethyl and diethyl ethers.
Dihydroxymethoxymethylbenzene.
2:3-Dihydroxynaphthalene methyl and ethyl ethers.
Dihydroxyphenoxide.
1:3-Dimethoxybenzene.
2:4-Dimethoxydimethyl-5-bromo-methyl-1-phenol.
2:7-Dimethoxynaphthalene.
Dimethoxyphenoxide.
Dimethylaminodimethylacetal.
4:4'-Dimethyldiphenylene oxide.
2:2'-Diphenol dimethyl and ethylene ethers.
Dithymolylamine ethyl ethers.
4-Ethoxy-1-allylbenzene.
Ethoxybenzene.
Ethoxyisoeugenol.
4-Ethoxy-1- α -hydroxybutylbenzene.

Ethers. See:—

4-Ethoxy-1- α -hydroxypropylbenzene.
2-Ethoxymethyl-4-propenylcatechol ether.
6-Ethoxy-3-methylpyridazine.
6-Ethoxy-3-phenyl-5-methylpyridazine.
p-Ethoxytriphenylcarbinyl ethylether.
p-Ethoxytriphenylmethane.
Ethylcatechol diethyl ether.
Ethyl ether.
Ethylene glycol methyl and propyl ethers.
Ethylene oxide.
Ethylisoeugenol.
Ethyl propyl ether.
Ethylpyrogallol triethyl ether.
Eugenol methyl ether.
Euxanthone methyl ethers.
Excoecarin dimethyl ether.
Gallacetophenone methyl ethers.
Hexylene oxide.
Homocatechol dimethyl ether.
Homoveratrole.
 β -Hydroxybutyracetal.
1-Hydroxyamphene methyl and ethyl ethers.
Hydroxy- ψ -cumylene *m*-glycol, *tri*-bromo-, dimethyl ether.
Hydroxydibenzylanthracene ethyl ether.
 α -Hydroxydihydroisoeugenol ethers.
 α -Hydroxy-*p*-ethylphenol α -methyl and -ethyl ethers.
5-Hydroxy-5-phenyl-10-methyl-5:10-dihydroacridine, ethers of.
o-Hydroxy-*p*-xylyl alcohol, methyl ether of.
Hydroxy-*p*-xylylene bromohydrin, methyl ether of.
Hystazarin dimethyl ether.
Methoxides.
Methoxybenzene.
Methoxydihydroanthracene.
 α -Methoxy-*p*-ethylphenol.
4-Methoxy-1- α -hydroxypropylbenzene.
6-Methoxy-3-methylpyridazine.
p-Methoxy- ω -nitrostyrene.
Methoxyphenanthrenes.
6-Methoxy-3-phenyl-5-methylpyridazine.
p-Methoxytriphenylcarbinol, ethers of.
p-Methoxytriphenylmethane.
Methyl *d*-fluoroethyl ether.
Methyleneoxide diacetate.
Methylisoeugenol.
Methylglyceraldehyde, acetal of.
Methylphloroglucinol alkyl ethers.
Myricetin pentamethyl and hexaethyl ethers.
 α -Naphthol methyl and ethyl ethers.
1- β -Naphthoxyethylpiperidine.

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- Oxanthranlyl methyl ether.
 2-Phenanthryl methyl and ethyl ethers.
 Phenetole.
 Phenyl ethers.
 Phenylidiansylmethane.
 Phenyl tolyl ethers.
 Phloroglucinol, ethers of.
 Propionylanisole.
p-Propionylisobutoxybenzene.
 Propionylphenetole.
 4-*iso*Propyldihydroresorcin ethyl ether.
 Purpurogallin trimethyl ether.
 Pyrogallol di- and tri-ethyl ethers.
 Pyromeconyl ethyl ether.
 Resorcinol methyl ether.
 Safrole.
*iso*Safrole.
 Storesinol methyl ether.
 Succintetraethylacetal.
 Terpene ethers.
 Tetramethyl δ aminobenzhydrol, ethers of.
 Tetramethyl δ aminodiphenylmethyl oxide.
 Thymyl ethyl ether.
 Toly methyl ethers.
 Tri-*p*-anisylchloromethane.
 Trianisylmethane.
 2:3:8-Trihydroxynaphthalene tri-methyl ether.
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 Undecyl ether.
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Acetylene.

β -Allylbenzene.

Allylmesitylene.

Amenylbenzene.

Amylbenzenes.

Amylene.

Anthracene.

Aromadendrene.

Benzene.

Benzyl-5-fluorene.

Butane.

*iso*Butane.

Butenylmesitylene.

p-Butenyl-*m*-xylene.

Butylbenzenes.

*iso*Butylene.

Cadinene.

Calamene.

Camphane.

Hydrocarbons. See:—

Camphene.
 Carvene.
 Cetylbenzene.
 Cetylmesitylene.
 β - ψ -Cumyl- β -butylene.
 Cymene.
 5:10-Dibenzylanthracene.
 Dibenzylmesitylene.
 Disecbutyl (*octane*).
 Didehydrocampholene.
 Dicyclohexyl.
 $\Delta^{1:5}$ -Dihydromesitylene.
 Dihydrophenanthrene.
 $\Delta^{1:3}$ -Dihydrotoluene.
 Dihydro-*m*-xylene.
 $\beta\beta$ -Dimethylbutane.
 Dimethyldicyclohexyl.
 1:1-Dimethyl- $\Delta^{2:4}$ -dihydrobenzene.
 1:3-Dimethyl-5-ethylbenzene.
 1:5-Dimethyl-2-ethyl- Δ^1 -tetrahydrobenzene.
 1:1-Dimethylhexamethylene.
 1:3-Dimethylcyclohexane.
 Dimethyl- $\gamma\delta$ -hexane (*octane*).
 Dimethylindenes.
 Dimethylnaphthalene.
 3:4-Dimethylcycloocta- $\Delta^{1:5}$ -diene.
 1:3-Dimethylcyclopentane.
 Dimethylisopropylbenzene.
 Dimyrcene.
 Dipentene.
 Diphenyl.
 Diphenylethanes.
s-Diphenylethylene.
 Diphenylcyclohexanes.
 Diphenylmethane.
 3:4-Diphenylcycloocta- $\Delta^{1:5}$ -diene.
 Diphenylpropanes.
 Diphenylpropylenes.
 Ditolyl.
 Docosane.
*dicyclo*Dodecatriene.
 Durene.
 Ethane.
 Ethylbenzene.
 Ethylene.
 Ethylfluorene.
p-Ethylstyrene.
 Fenchene.
 Fluorene.
*cyclo*Geraniolene.
 Heneicosane.
 Heptadecane.
*iso*Heptylbenzene.
 Hexacosane.
 Hexadecane.
 Hexadecenylmesitylene.
 Hexadecenyl-*m*-xylene.
 Hexamethylbenzene.
*cyclo*Hexane.
 Hexanes.

Hydrocarbons. See:—

Hexaphenylethane.
 β -Hexene.
*cyclo*Hexylbenzene (*phenylcyclohexane*).
*iso*Hexylene.
 Homocarvomenthene.
 Homomenthene.
 Indene.
 Laurolene.
*iso*Laurolene.
 Limonenes.
 Menthenes.
 Mesitylene.
 Methane.
 Methenylbisfluorene.
 Methoethenylbenzene (β -*allylbenzene*).
p-Methylallylbenzene.
 1-Methyl-3-*tert*. butylbenzene.
 β -Methyl- β -butylene (*amylene*).
 1-Methyl-3-ethylcyclohexene.
 1-Methyl-3-ethylcyclopentane.
 Methylfenchene.
 Methylfluorene.
 δ -Methyl- γ -heptylene (*octylene*).
 1-Methylcyclohexane.
 1-Methylcyclohexene.
 Methylindenes.
 γ -Methyl-2-methylenecyclopentane.
 Methylcyclopentane.
 β -Methylpentane (*isohexane*).
 1-Methylcyclo- Δ^2 -pentene.
 1-Methylpropyl-2-ethylethylene (*octylene*).
p-Methylstyrene.
 Methyltrimethylene.
 Myrcene.
 Naphthalene.
 Naphthenes.
 Nonadecane.
 Nonylenes.
 Octacosane.
 Octadecane.
*cyclo*Octa- $\Delta^{1:5}$ -diene.
 Octanes.
 Octinene.
 Octylene.
 Pentacosane.
 Pentadecane.
 Pentamethylbenzene.
 Pentane.
*iso*Pentane.
 Pentinene.
 Phellandrene.
 Phenanthrene.
 Phenylacetylene.
 β -Phenyl- β -amylene.
 Phenylbutadienes.
 α -Phenyl- β -butylene.
 β -Phenyl- β -butylene.
 Phenyldihydropinene.
 β -Phenyl- β -isohexylene.

Hydrocarbons. See:—

- Phenylcyclohexane.
- α -Phenyl- γ -methyl- $\alpha\gamma$ -butadiene.
- α -Phenyl- γ -methyl- $\alpha\gamma$ -pentadiene.
- Pinenes.
- Piperylene (*pentinene*).
- Polymyrcene.
- cycloPropane.
- isoPropylbenzene.
- Propylene.
- Pulenene.
- Pyrodympinalcolene.
- Salvene.
- Stilbene.
- Styrenes.
- Terpane.
- Terpenes.
- Terpinene.
- Tetracosane.
- Tetradecane.
- ar*-Tetrahydro- β -naphthalene.
- Tetrahydrotoluene.
- Toluene.
- Tricosane.
- Tridecane.
- Triethylbenzenes.
- Trimethylcyclohexadecatriene.
- Trimethylene (*cyclopropane*).
- Trimethylethylene (*amylene*).
- Triphenylmethane.
- Triphenylmethyl.
- Tropilidene.
- $\beta\gamma$ -Undecinene.
- Undecylene.
- Xylenes.
- Zingiberene.

Hydrocarbostyryl-4-acetic acid. See Dihydrocarbostyryl-4-acetic acid.

*iso***Hydrochelidonic acid.** See Pilomalic acid.

Hydrochloric acid. See under Chlorine.

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 estimation of carbon in (LEFFLER), A., ii, 355.
 estimation of carbon in, by direct combustion (BLOUNT), A., ii, 174.
 estimation of molybdenum in (AUCHY), A., ii, 430.
 estimation of phosphorus and sulphur in (ANTONY), A., ii, 47.
 estimation of silicon in (AUCHY), A., ii, 174.
- Iron** (in general), **estimation and separation of**:—
 estimation of, colorimetrically (SEILER and VERDA), A., ii, 699.
 estimation of, volumetrically (SCHMATTOLLA), A., ii, 108; (GINTL), A., ii, 429.
 estimation of, in metabolism experiments (NEUMANN), A., ii, 176, 583.
 estimation of, in urine (NEUMANN), A., ii, 583.
 electrolytic estimation of copper in (KOCH), A., ii, 357.
 estimation of manganese in (NOYES and CLAY), A., ii, 430.
 estimation of phosphorus and sulphur in (ANTONY), A., ii, 47.
 colorimetric estimation of sulphur in (LINDLAY), A., ii, 425.
 estimation of sulphur in, by Eschka's method (STEHMAN), A., ii, 699.
 separation of (NICOLARDOT), A., ii, 22.
 quantitative separation of, from zirconium (GUTHRIE and MÜLLER), A., ii, 701.
- Iron-carbon systems**, chemical equilibrium of (CHARPY and GRENER), A., ii, 209.
- Isatin** and its derivatives (BURACZEWSKI and MARCHLEWSKI), A., i, 120; (v. KORCZYNSKI and MARCHLEWSKI), A., i, 646.
- Isatinoxime** benzyl ether and its bromo-, chloro-, and nitro-derivatives (v. KORCZYNSKI and MARCHLEWSKI), A., i, 648.
- Isatocyanin** (MARCHLEWSKI), A., i, 616.
- Isatoic acid** and its hydrogen sodium salt (FARBWERKE FORM. MEISTER, LUCIUS, & BRÜNING), A., i, 454.
- Isatomalononitrile** (WALTER), A., i, 374.
- Isomerism**, distinction between, and polymorphism (WEGSCHEIDER), A., ii, 126; (BRUNI), A., ii, 448.
 in the cobalt-tetrammine series (HOFMANN and JENNY), A., ii, 81.
- Isomorphism** of selenates and tellurates (NORRIS and KINGMAN), A., ii, 15.
- Isomorphous mixtures**, volume relations and optical characters of (WULFF), A., ii, 444.
- Isoprenic acid** (IPATIEFF), A., i, 132.
- Isotherms** for mixtures of hydrogen chloride and ethane (QUINT GZK), A., ii, 60.
- Isotonic salt solutions**, diuretic action of (HAAKE and SPIRO), A., ii, 416.
- J.**
- Jacarandin** and its diacetyl and dibenzoyl derivatives (PERKIN and BRIGGS), T., 217; P., 1902, 11.
- Jacquemase** (POZZI-ESCOT), A., i, 655.
- Jadeite** axes, composition of (BERWERTH), A., ii, 214.
 rocks in the Western Alps and in Liguria (FRANCHI), A., ii, 214.
- Jadeite** from Cassine (Acqui) (COLOMBA), A., ii, 612.
- Jamesonite** from New Jersey (CHESTER), A., ii, 611.
- Jams**, polarisation of (TOLMAN), A., ii, 537.
 detection of gelatin and gelose in (DESMOULIERE), A., ii, 588.
- Jasmine** blossoms, oil of (ERDMANN), A., i, 229.
- Jellies**, polarisation of (TOLMAN), A., ii, 537.
- Juniper**, empyreumatic oil of (CATHELINEAU and HAUSSER), A., i, 44.
- K.**
- Kaempferia Galanga**, oil of, constituents of (VAN ROMBURGH), A., i, 633.
- Kainite**. See Agricultural Chemistry.
- Kairolone-6-, -7-, and -8-carboxylic acids** (FISCHER and ENDRES), A., i, 693.
- Kampherol** and its salts, and tribromo- and tetra-acetyl derivatives from the flowers of *Delphinium Consolida* (PERKIN and WILKINSON), T., 585; P., 1900, 182.
 and its tetra-acetate (PERKIN), T., 475; P., 1901, 87.
 methyl ether, constitution of (PERKIN and ALLISON), T., 472.

- Kaolin** from near Spezia, Italy (SALLE), A., ii, 409.
- Katabolism**, nitrogenous, in the hedgehog (NOË), A., ii, 337.
- Kephalin** from brain (KOCH), A., ii, 676.
- Keratin**, action of superheated steam on (BAUER), A., i, 846.
- Kermes mineral** (FEIST), A., ii, 507.
- Kerosenes**, commercial, from Kieff (KUDISCH), A., i, 333.
- Ketocampholenic acid**, esters (BÉHAL), A., i, 420.
- Ketodihydrocampholenic acid**, constitution of (BÉHAL), A., i, 420.
- 4-Ketodihydrotoluene**, 3:5-dibromo-1-nitro- (AUWERS), A., i, 217.
- 3-Keto-1:1-dimethyl- Δ^4 -tetrahydrobenzene**, bromo-derivatives and 5-chloro- (CROSSLEY and LE SUEUR), P., 1902, 238.
- γ -Keto- $\alpha\delta$ -diphenyliminopentane- α -carboxylic acid**, ethyl ester, reactions of (SIMON), A., i, 422.
- Keto-3:5-diphenyl- Δ^2 -tetrahydrobenzene-6-carboxylic acid**, ethyl ester (KNOEVENAGEL and SPEYER), A., i, 227.
- Ketohexyltetronic acid**, benzoyl derivative, and ψ -oxime of (WOLFF, GABLER, and HEYL), A., i, 676.
- 4-Keto-1-mono- and -1:3-di-methyl-1-dichloromethyldihydrobenzene** (AUWERS and WINTERNITZ), A., i, 218.
- 2-Ketomethylhexamethylenecarboxylic acid** and its ethyl ester (EINHORN and KLAGES), A., i, 74.
- α -Keto- β -methylhexolactone- γ -carboxylic acid** (FICHTER and PREISWERK), A., i, 443.
- 2-Ketomethylisopropylhexamethylenecarboxylic acid**, ethyl ester (EINHORN and KLAGES), A., i, 75.
- 4-Keto-5-methyl- and -5-phenyl-thiazolidine-2-thio-** (WHEELER and JOHNSON), A., i, 761.
- Ketone**, $C_9H_{12}O_2$, from 1:8:9-trihydroxyterpane (WALLACH and RAHN), A., i, 804.
- $C_9H_{16}O$, and its semicarbazone, from α -methyl- δ -isopropyladipic anhydride (MARTINE), A., i, 630.
- $C_{10}H_{10}O_4NCl$, obtained in the preparation of 6:6'-dichloroindigotin (BADISCHE ANILIN- & SODA-FABRIK), A., i, 458.
- $C_{13}H_{10}O_3N_2$, and its salts, oxime and phenylhydrazone, from the oxidation of *p*-nitrophenyl-2-picolyalkine (KNICK), A., i, 394.
- $C_{15}H_{16}O_3$, from piperonylidene-*p*-methylacetophenone (SORGE), A., i, 380.
- Ketone**, $C_{22}H_{42}O$, from methyl nonyl ketone (MANNICH), A., i, 593.
- Ketones**, formation of, from β -chloroalcohols (KRASSUSKY), A., i, 425.
- formation of, from haloid derivatives of olefines (KRASSUSKY), A., i, 261.
- synthesis of, by means of magnesium organic compounds (BLAISE), A., i, 164.
- method of isolating (NEUBERG and NEIMANN), A., i, 572; (FREUND and SCHANDER), A., i, 696.
- behaviour of, towards Tesla rays (KAUFFMANN), A., ii, 191.
- interaction of, with acid chlorides (LEES), P., 1902, 213.
- transformation of, into α -diketones (PONZIO and BORELLI), A., i, 659.
- comparison of, with sulphoxides (SMYTHE), A., i, 221.
- unsaturated dicarboxylic acids from ethyl succinates and (STOBBE), A., i, 459; (STOBBE and NIEDENZU), A., i, 460; (STOBBE, STRIGEL, and MEYER), A., i, 461.
- acetylenic, synthesis of, and their hydrolysis (MOUREU and DELANGE), A., i, 164, 253.
- aromatic, condensation of (SORGE), A., i, 379.
- influence of intranuclear substituents on the reactivity of (POSNER), A., i, 622.
- compounds of, with arsenic acid and with orthophosphoric acid (KLAGES), A., i, 624.
- cyclic, heat of combustion of (ZUBOFF), A., i, 144.
- mixed, preparation of, by heating the mixed calcium salts of organic acids (LUDLAM), T., 1185; P., 1902, 132.
- unsaturated, action of mercaptans on (POSNER), A., i, 296.
- test for (PILOTY and STOCK), A., i, 735.
- Ketones and Quinones**. See also:—
- Acetone.
- Acetonylacetone.
- Acetonynaphthalimidine.
- Acetophenone.
- o*-Acetoxyindanone.
- Acetylacetone.
- Acetylaminoacetophenones.
- Acetyl-1:1-dimethylcyclohexanones-3.
- Acetylionone.
- Acetylmesitylene.
- Acetylmethylheptanone.
- Acetylmethylheptenone.
- 2-Acetyl-3-methylquinoxaline.
- 4-Acetyl-2-phenyl-5-methylfurfuran.
- 4-Acetyl-2-phenyl-5-methylpyrrole.
- 2-Acetyl-3-phenylquinoxaline.
- p*-Acetyltetrahydrotoluene.

Ketones and Quinones. See:—

Acridone.
 Aldehydotrichloroquinodichloride.
 Alizarin.
 Alkylacetylacetones.
*iso*Amylacetone.
 3-Amylpyrazolone.
 Anhydrobisdiketohydrindene.
 Anhydrobispyrindanedione.
 Anhydrotetramethylhæmatoxylone.
 Anhydrotrimethylbrazilone.
 Anilino-1:2-diketopentamethylene-2-anil hydrochloride.
 8-Anilino-1-nitroanthraquinone.
 5-Anisidino-2-*isopropylbenzoquinone*.
 Anisylideneacetone.
 Anisylidenecamphor.
 3-Anisylpyridazinone.
 3-Anisylpyridazone.
 Anthrachrysone.
 Anthraquinone.
 Anthrarufin.
 Antipyrine.
 α -Arylaminoanthraquinones.
 Asarone.
 Benzenesulphophenanthraquinones.
 Benzil.
 Benzoin.
 Benzophenone.
 Benzo-1:4-pyrone.
 Benzoylacetetylacetone.
 Benzoylbutyrylmethane.
 Benzoylcamphor.
 Benzoyldiacetylene.
 Benzoyl-2:4-diethoxyacetophenone.
 Benzoyl-5-fluorenone.
 $\alpha\alpha$ -Benzoyl-iodo- and -nitro-camphor.
 Benzoyloxyphenanthraquinones.
 Benzoylphenylacetylene.
 Benzoylpyridines.
 ω -Benzylacetophenone.
 Benzyl *iso*amyl ketone.
 Benzylcamphor.
 Benzyl cinnamenyl ketone.
 Benzyl ethyl ketone.
 γ -Benzylethyl methyl ketone.
 Benzylideneacetone.
 Benzylideneacetophenone.
 Benzylidene-*m*-aminoacetophenone.
 Benzylidene-*p*-anisylideneacetone.
 4-Benzylidenebis-3-phenyl-5-pyrazolone.
 4-Benzylidene-1-*p*-bromophenyl-3-phenyl-5-pyrazolone.
 Benzylidenecamphor.
 Benzylidenedeoxybenzoins.
 γ -Benzylidene-ethyl methyl ketone.
 Benzylidenementhones.
 Benzylidene-*p*-methylacetophenone.
 Benzylidenemethyl ethyl ketone.
 Benzylidene- α -methylpentanone.
 Benzylidenemethyl propyl ketone.

Ketones and Quinones. See:—

Benzylidenemethyl *isopropyl* ketone.
 Benzylidenepropyl methyl ketone.
 Benzylidenethujamenthone.
 Benzylideneisothujone.
 Benzyl *p*-methoxycinnamenyl ketone.
 Benzyl methylcinnamenyl ketone.
 Benzyl 3:4-methylenedioxcinnamenyl ketone.
 α -Benzylmethyl ethyl ketone.
 Benzylmethylcyclohexanone.
 Benzyl methyl ketone.
 Benzyl phenylethyl ketone.
 Benzyl *n*-propyl ketone.
 Benzyl stilbyl ketone.
 Bisnaphtharonyl.
*iso*Butylpyrazolone.
 Butyrylmesitylene.
 3-*iso*Butyryl-1-methylcyclopentanone-4.
 Butyrylphenylacetylene.
 Camphidones.
 Camphor.
*iso*Camphor.
 Camphorophorone.
 Camphorquinone.
 Chromone.
 Chrysarobin.
 Chrysazin.
 Chrysoquinone.
 2-Cinnamoyl-3-methylquinoxaline.
 Cinnamylideneacetophenone.
 Cotoin.
 Coumarone.
 ψ -Cumyl methyl ketone.
 Decane- β -dione.
 Deoxybenzoin.
 Deoxytrimethylbrazilone.
 Diacetyl.
 4:6-Diacetyl-5-phenyl-3-methylcyclohexane-3-ol-1-one.
 Dianisylideneacetones.
 Dibenzoyldianthranilylmethane.
 Dibenzoylthylenes.
 Dibenzoylmesitylene.
 Dibenzoyloxydiphenanthrylene.
 2:5-Dibenzoyloxyquinone.
 Dibenzylideneacetone.
 Dibenzyl ketone.
 Dibenzylmethylcyclohexanone.
 Dibenzyl methyl ketone.
 Diisobutyl ketone.
 Di-*n*- and -*iso*-butyryl.
 Dichrysarobin.
 3:4-Diethoxybenzylidene-*m*-nitroacetophenone.
 2:4-Diethoxy-3':5'-dimethoxybenzylacetophenone.
 Diethoxyhydrindone.
 Diethyl diketone.
 Digitoflavone.
 Dihydroisophorone.

Ketones and Quinones. See:—

Dihdropulegone.
 3:4-Dihydroxybenzylidene-*m*-nitroacetophenone.
 5:7-Dihydroxychromone.
 Dihydroxymethylheptanone.
 Dihydroxymethylcyclohexanone.
 1:8-Dihydroxynaphthaketones.
 2:4-Diketo-5- and -3:5-diphenyltetrahydrothiazole.
p-Diketohexahydrotetrazine.
o-Diketomethylcyclohexane.
 Diketones.
 1:2-Diketopentamethylene.
 3:5-Diketo-2-phenyltetrahydrothiazole.
 5:7-Dimethoxychromone.
 Dimethoxyhydrindone
 Dimethoxymethylenedioxycetophenone.
 Dimethylaminoacetophenones.
p-Dimethylaminobenzylidene-*m*-aminoacetophenone.
s-Dimethyl δ aminodi-*o*-tolyl ketone.
 3:6-Dimethylaminothymoquinone.
 Dimethylcoumarones.
 Dimethyldihydroresorcin.
 Dimethylionones.
 3:3-Dimethylcyclopentanone.
 1:3-Dimethylpyridazone.
 Dimethylpyrone.
 Dinaphthaxanthone.
 Dioxypinene.
 Diphenacyl.
 Dipropionyl.
o-Dipropoxydiphenyltetrahydropyrone.
 2:5-Dipropoxyquinone.
 3:5-Di-*o*-toluidino-1-*isopropyl*benzoquinone.
 Diisovaleryl.
 3:5-Dixylidino-1-*isopropyl*benzoquinone.
 Di-*as-m*-xylidiketopiperazine.
a-*iso*Dypnopinalcolin.
 7-Ethoxy-2-benzylchromone.
 6-Ethoxy-1:3-diketo-2-phenylhydrindene.
 Ethoxyindone.
 3-Ethoxy-5-keto-1-phenyl-2:5-dihydrotriazole.
 3-Ethoxyphenanthraquinone.
 6-(or 7)-Ethoxy-3-phenyl-1-benzylphthalazone.
 4-Ethyl-3-amylpyrazolone.
p-Ethylidenequinone.
a-Ethyl-luteolin.
 14-Ethyl- β , β , α' , β' -naphthaeridine.
 Ethyl propyl ketone.
 4-Ethyl-3-propylpyrazolone.
 Ethylsalicylidene α camphor.
 Euxanthone.

Ketones and Quinones. See:—

Fenchone.
 Fillicyl-*n*-butanone.
 Fluorenonequinoline.
 Hexahydroxyanthraquinone.
*cyclo*Hexanolones.
 Hydrocoumarone.
p-Hydroxyacetophenone.
 Hydroxyanthraquinones.
 Hydroxybenzophenone.
 7-Hydroxy-2-benzylchromone.
a-Hydroxybenzylideneacetophenone.
 Hydroxybenzylidene-2-bromoidanones.
 6-Hydroxychromone.
 Hydroxydihydrotetramethylhæmatoxylone.
 Hydroxydihydrotrimethylbrazilone.
a-Hydroxy-*aa*-dimethylacetylacetone.
 Hydroxydimethylpyrone.
 1-Hydroxyerythroanthraquinone.
 3-Hydroxy-5-keto-1-phenyl-2:5-dihydrotriazole.
 3-Hydroxy-5-keto-1-phenyl-2- and -4-methyl-4:5-dihydrotriazoles.
 5-Hydroxy-7-methoxychromone.
 3-Hydroxy-5-methoxy-2-methylquinone.
*iso*Hydroxymethylchrysin.
p-Hydroxy-*p*-methylhexahydroacetophenone.
 Hydroxyphenanthraquinones.
o-Hydroxyphenyl ethyl ketone.
 3-*p*-Hydroxyphenylpyridazone.
o-Hydroxyphenyl *p*-tolyl ketone.
 5-Hydroxyisopropylbenzoquinones.
 Hydroxypyrazolone.
 Hystazarin.
 Ianthone.
 Indone.
 Ionones.
 4-Ketodihydrotoluene.
 3-Keto-1:1-dimethyl- Δ_4 -tetrahydrobenzene.
 4-Keto-1-mono- and -1:3-di-methyl-1-dichloromethyl-dihydrobenzene.
 4-Keto-5-methyl- and -5-phenylthiazolidine.
 3-Keto-1:2:2:5:5-pentamethylpyrrolidine.
 2-Ketopentoxazolidine.
 4-Keto-1-phenyl-3-methylpyrazolone.
 3-Keto-2:2:5:5-tetramethylpyrrolidine.
 5-Keto-1:2:4-trimethyl-2-dichloromethyl-dihydrobenzene.
 Ketotrimethyldihydroisooxazole.
 Luteolin.
 γ -Lutidone.
 Menthone.
 Mesityl methyl ketone.
 Mesityl oxide.

Ketones and Quinones. See :—

Mesityl pentadecyl ketone.
 Methoxybenzophenones.
 7-Methoxychromone.
p-Methoxydibenzylideneacetone.
 3'-Methoxy-4'-ethoxybenzoyl-2:4-diethoxyacetophenone.
 3'-Methoxy-4'-ethoxybenzoyl-2:4:6-trimethoxyethylacetophenone.
 2-Methoxyfluorenone.
 Methoxyphenanthraquinones.
o-Methoxyphenyl ethyl ketone.
 5-Methoxy-1-*isopropyl*benzoquinone.
 Methylacetylmethylheptenone.
 10-Methylacridone.
 Methyl *isobutenyl* ketone.
 Methyl *tert.* butyl ketone.
 Methyltrichloroquinodichloride.
 Methyldeoxybenzoin.
 Methylenebisacetylacetone.
 4-Methylenebis-3-methyl-5-pyrazolone.
 4-Methylenebis-3-phenyl-5-pyrazolone.
 3-Methyl-5-ethyl- Δ^2 -cyclohexenone.
 Methyl ethyl ketone.
 Methyl ethylphenacylthetine salts.
 3-Methyl-4-ethylpyrazolone.
 Methyl ethylpyridazone.
 Methylheptenone.
 Methylheptyl ketone.
 β -Methylhexanone.
 Methylcyclohexanones.
 Methylcyclohexanose.
 Methylcyclohexenone.
 Methyl hexyl ketone.
 Methylhydrindone.
 Methylionones.
 Methyl β -methylhexyl ketone.
 Methylnataloe-emodin.
 β -Methyl- β -nonene- $\zeta\theta$ -dione.
 Methyl nonyl ketone.
 ζ -Methyl- α -octene- $\epsilon\eta$ -dione.
 Methylpentanones.
 β -Methylcyclopentanone.
 Methyl propyl ketone.
 Methylpyridazinephthalone.
 Methyl-pyridazinone and -pyridazone.
 2-Methyl-6-pyridyl methyl ketone.
 Methylsalicylideneamphor.
p-Methyltetrahydroacetophenone.
 α -Naphthachromone.
 Naphthaeridone.
 Naphthalidodimethyl ketone.
 Naphthazarins.
 5- α -Naphthylamino-1-nitroanthraquinone.
 Nataloe-emodin.
 α -Octene- $\epsilon\eta$ -dione.
 Oximinodipropyl ketone.
 Oxymethylpyridone.
 Parasarone.
 cycloPentanone.

Ketones and Quinones. See :—

Δ^2 -cycloPentene-1-one-2-ol.
 ω -Phenacetyl-2:4-dietiloxacetophenone.
 4-Phenacyl-3:5-dimethylisooxazole.
 Phenacylnaphthalimidine.
 4-Phenacyl-1-phenyl-3:5-dimethylpyrazole.
 Phenanthraquinone.
 3-Phenanthrolquinone.
 Phenoquinone.
 Phenylacetone.
 Phenylacetylacetophenone.
 Phenylacetyl-*o*-aminoacetophenone.
 Phenylchloromethylenecamphor.
 4-Phenyldihydro-2-picolone.
 1-Phenyl-2:3-dimethyl-5-pyrazolone.
 3-Phenyl-2:6-di-*p*-tolyltetrahydro-1:4-pyrone.
 Phenyl ethyl ketone.
 Phenyl formazyl ketone.
 Phenylhydroxymethylenecamphor.
 Phenyliminobenzophenone.
 1-Phenyl-3-methylpyrazolone.
 3-Phenyl-5-methylpyridazinone. and -pyridazone.
 Phenyl naphthalidomethyl ketone.
 Phenyl *n*-propyl ketone.
 3-Phenylquinolineazone.
 Phenyl tetrahydronaphthyl ketone.
 Phenyl *p*-xylyl ketone.
 Phorone.
*iso*Phorone.
 Pinacolin.
 Piperonylidene-*p*-methylacetophenone.
 Propionylacetophenone.
 Propionylbutyryl.
 Propionylmesitylene.
 Propiophenone.
n-Propyl *iso*amyl ketone.
 4-*iso*Propyldihydroresorein.
 3-Propyl-4-hexylpyrazolone.
*iso*Propylideneacetone.
 Pulegenone.
 Pulegone.
 Pulenone.
 Purpurogallin.
 Pyrazolones.
 Pyridoyl-1-phenylpyrazolones.
 4-Pyridyl butyl ketone.
 Pyridyltrichlorohydroxyquinone.
 Pyridyltrichlorotriketopentamethylenene.
 Pyridyl methyl, ethyl, and propyl ketones.
 2-Pyridyl phenethyl ketone.
 Pyrodynopinacolin.
 Pyrone.
 Quinizarin.
 Quinone.
o-Quinone.
 Quinone C₁₀H₆O₄.

Ketones and Quinones. See:—

- Quinone $C_{20}H_{10}O_7(?)$.
 Quinophthalone.
 Resacetophenone.
 Ruffallic acid.
 Santonin.
 Scutellarein.
 Scutellarin.
 Stilbyl methyl ketone.
 Tetrahydronaphthyl methyl ketone.
 Tetrahydro-*p*-tolyl methyl ketone.
 3:3':4':5'-Tetrahydroxyflavone.
 2:4:6:4'-Tetramethoxybenzoylacetophenone.
 2:4:6:3'-Tetramethoxy-4'-ethoxybenzoylacetophenone.
 3:3':4':5'-Tetramethoxyflavone.
 Tetramethyldiaminobenzophenone.
 Tetramethylhaematoxylone.
 Thujamenthene.
 Thujone.
*iso*Thujone.
 Thymoquinone.
 Thymoquinonethymolimine.
 7-*p*-Toluidino-1-nitroanthraquinone.
 5-Toluidino-2-*isopropyl*benzoquinones.
p-Tolyl butyl ketone.
o-Tolyl ethyl ketone.
p-Tolyl methyl ketone.
p-Tolyl propyl ketone.
 3-*p*-Tolylpyridazinone.
 3-*p*-Tolylpyridazone.
 Triacetoneamine.
 3:3':4'-Trihydroxyflavone.
 $\beta\gamma\delta$ -Triketopentane.
 $\beta\gamma\delta$ -Triketo- δ -phenylbutane.
 3':4':5'-Trimethoxy-2:4-diethoxybenzoylacetophenone.
 2:4:6-Trimethoxydiphenyltriketone.
 2:4:6-Trimethoxy-2'-ethoxybenzoylacetophenone.
 3:3':5'-Trimethoxyflavone.
 Trimethylbrazilones.
 Trimethyldehydrobrazilone.
 Trimethylcyclohexanones.
 Trimethylcyclohexenone.
 2:4:4-Trimethylcyclo- Δ^2 -hexenone.
 4:5:5-Trimethylcyclopentanone.
 3:3:4-Trimethyl-2-quinolone.
 Tropinone.
*iso*Valerylacetone.
 Vinylacetoneamine.
m-Xylidinomethyleneacetylacetone.
m-Xylol penta decyl ketone.

Ketonic acid, $C_9H_{16}O_3$ and its semicarbazone from the oxidation of pulegone (WALLACH and COLMANN), A., i, 724.

$C_9H_{16}O_3$ and its lactone, oxime, and semicarbazone, from the oxidation of *isothujone* (WALLACH), A., i, 801.

β -Ketonic acids, esters, synthesis of (MOUREU and DELANGE), A., i, 164.

optically active (LAPWORTH and HANN), T., 1491, 1499; P., 1902, 144, 145.

action of organomagnesium compounds on (GRIGNARD), A., i, 420.

α -derivatives of (LOCQUIN), A., i, 704.

α -substituted, action of nitrous acid on (BOUVEAULT and LOCQUIN), A., i, 704.

Ketonic alcohols, action of nitric acid on (PONZIO), A., i, 134.

3-Keto-1:2:2:5:5-pentamethylpyrrolidine and its additive salts and oxime (PAULY), A., i, 560.

2-Ketopentoxazolidine, 1-nitro- (FRANCHIMONT and LUBLIN), A., i, 427.

1-Keto-5-phenyl-3-cinnameryl- Δ^2 -tetrahydrobenzene-6-carboxylic acid, ethyl ester (KNOEVENAGEL and SPEYER), A., i, 227.

4-Keto-1-phenyl-3-methylpyrazolone, and its hydrate, oxime, and phenylhydrazone (SACHS and BARSCHALL), A., i, 504.

ϵ -Keto- β -isopropylheptoic acid and its semicarbazone (WALLACH and FRESNIUS), A., i, 801.

δ -Keto- β -isopropylhexoic acid and its oxime and semicarbazide (CROSSLEY), T., 676; P., 1901, 172; 1902, 86.

Ketoses, isolation of (NEUBERG), A., i, 264, 660.

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3-Keto-2:2:5:5-tetramethylpyrrolidine and its additive salts (PAULY), A., i, 560.

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 α -Anisylidene- $\Delta\beta$ -angelicalactone.
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 α -iso-Butyl- β -isopropylbutylolactone.
 Camphenolactone.
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 Dibutylolactone.
 Dihydrobrazilic acid, lactone of.
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 Dihydrolauroolactone.
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 $\alpha\beta$ -Dihydroxy- α -phenyl- γ -benzylbutylolactone.
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 4:6-Dimethoxy- α -methylcoumarin.
 $\alpha\alpha$ -Dimethylbutylolactone.
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 $\beta\gamma$ -Diphenylbutyrolactone.
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 Ethylolhomocitonic acid, lactone of.
 Galactonolactone.
 β -Hydroxybutyrolactone.
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 α -Oxy- β -phenyl- γ -benzylbutyrolactone.
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 - Hydrogöthite.
 - Iodembolite.
 - Koenenite.
 - Manganosphærite.
 - Metakoënenite.
 - Mooraboolite.
 - Natroalunite.
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Minerals, new. See:—

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5-Acetyl-4-methylpyrazole-3-carboxylic acid, oxime of.

2-Acetyl-3-methylquinoxaline, oxime of.

4-Acetyl-2-phenyl-5-methylfurfuran, oxime of.

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γ -Benzylidene-ethyl methyl ketone, oxime of.

Benzylidenementhoneoximes.

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α -Benzylmethyl ethyl ketone, oxime of.

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$\gamma\gamma$ -Diacetylbutyric acid, ethyl ester, dioxime of.

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α -Hydroxy- $\alpha\alpha$ -dimethylacetonylacetone, dioxime of.

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*iso*Photosantonolactone, oxime of.
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Abrin.
Acid-albumin.
Albumins.
Albumoid.
Albumoses.

Proteids. See :—

Antipeptones.
Atmid keratose.
Atmid keratin.
Casein.
Caseinogen.
Caseoses.
Chitin.
Chondro-albumoid.
Coaguloses.
Collagen.
Cystein.
Cystin.
Egg-albumin.
Elastin.
Fibrin.
Fibroin.
Gelatin.
Globulin.
Gluco-proteids.
Gluten.
Glutineptone.
Glyco-albumose.
Hæmins.
Hæmoglobins.
Histon.
Ichthylepidin.
Kephalin.
Keratin.
Lactoserum.
Lecithin.
Melanins.
Mucin.
Mucoids.
Nucleo-histon.
Nucleo-proteid.
Osseo-albumoid.
Peptone.
Plasteins.
Protein.
Proteoses.
Pseudomucin.
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 Acetophenonedibenzyl-, -ethyl-, and -phenylsulphones.
 β -Amylsulphonetisobutyl methyl ketone.
 β -Amylsulphone- β -methyl- β -phenylethyl phenyl ketone.
o-Anisylmethylsulphone.
o-Anisylsulphoneacetic acid.

Sulphones. See :—

- o*-Anisylsulphone-ethyl alcohol.
- β -Amylsulphone- β -phenylethyl phenyl ketone.
- Benzaldehyde-dialkyl- and -diaryl-sulphones.
- m*-Benzenedibenzylsulphone.
- m*-Benzenedisulphoneanilide.
- m*-Benzenedisulphonedibenzylanilide.
- m*-Benzenedisulphonehydroxylamine.
- m*-Benzenedibiododimethylsulphone.
- Benzophenone-di-benzyl- and -ethyl-sulphones.
- β -Benzylsulphone- β -methyl- β -phenyl-ethyl phenyl ketone.
- β -Benzylsulphone- β -phenylethyl phenyl ketone.
- Bistramethylenesulphone.
- ψ -Cumylsulphoneacetic acid.
- ψ -Cumylsulphone-ethyl alcohol.
- Di- β -alkylsulphoneisobutyl ketones.
- $\beta\beta$ -Diamylsulphone-butane- γ -one, - γ -methylpentane- δ -one, and -pentane- γ - and - δ -ones.
- $\beta\beta$ -Diamylsulphonepentane-3-one.
- Di-*o*-anisylethylenedisulphone.
- Dibenzylacetonedialkylsulphones.
- $\beta\beta$ -Dibenzylsulphone- γ -methylpentane- δ -one, and -pentane- γ - and - δ -ones.
- Di- ψ -cumylethylenedisulphone.
- Di- α - and - β -naphthylethylenedisulphones.
- $\zeta\zeta$ -Diphenylsulphone- β -methylheptane- γ -one.
- Diphthaliminosulphonal.
- Disulphones.
- Di-*m*- and -*p*-xylylethylenedisulphones.
- 2-Methylcycloctetramethylene-1:3-disulphone.
- Naphthylsulphoneacetic acid.
- Naphthylsulphone-ethyl alcohols.
- α -Phenyl- $\gamma\gamma$ -dibenzylsulphonebutane- α -al.
- Phenylethylenedisulphone.
- Phenylsulphoneacetic acid.
- Phenylsulphone-ethyl alcohol.
- β -Phenylsulphone- β -methyl- β -phenyl-ethyl phenyl ketone.
- β -Phenylsulphone- β -phenylethyl methyl ketone.
- α -Phenylsulphone- β -phenylethyl phenyl ketone.
- $\beta\beta\gamma\gamma$ -Tetrabenzylsulphonebutane.
- $\beta\beta\epsilon\epsilon$ -Tetrabenzylsulphonehexane.
- $\gamma\gamma\zeta\zeta$ -Tetrabenzylsulphone- β -methylheptane.
- $\beta\beta\epsilon\epsilon$ -Trialkenylsulphonehexane.
- $\beta\beta\gamma$ -Trialkylsulphone- δ -phenylbutanes.
- $\alpha\alpha\gamma$ -Tribenzylsulphone- $\alpha\gamma$ -diphenylpropane.

Sulphones. See :—

- m*-Xylylalkylsulphones.
- o*-Xylylenedibenzylsulphone.
- cyclo-*o*-Xylylene-1:3-disulphone-2-methylene, -2-methylmethylene, and -2-phenyl-2-methylmethylene.
- Xylylsulphoneacetic acids.
- Xylylsulphone-ethyl alcohols.
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- p*-Tolueneazo-*p*-nitrobenzene (BAMBERGER), A., i, 509.
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- p*-Toluenediazoaminotetrahydro- β -naphthalene (SMITH), T., 902; P., 1902, 137.
- m*-Tolueneanti-diazotate, and -diazohydrate, 2:4:6-tribromo- (HANTZSCH and POHL), A., i, 843.
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- o*-Toluenesulphinic acid, amide of (BASLER CHEMISCHE FABRIK), A., i, 96.
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- Toluene**-*p*-sulphonic acid and *o*-nitro-, and their phenyl and tolyl esters (REVERDIN and CRÉPIEUX), A., i, 434.
- Toluene**-*o*-sulphonic chloride (BASLER CHEMISCHE FABRIK), A., i, 363.

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- Toluene**-*p*-sulphonic chloride and *o*-nitro-derivatives of (REVERDIN and CRÉPIEUX), A., i, 238.
- Toluene**-*p*-sulphon-*o*- and -*p*-toluidides and their nitro-derivatives (REVERDIN and CRÉPIEUX), A., i, 434.
- m*-Toluic acid and nitrile, 4-amino- (EHRICH), A., i, 26.
- p*-Toluic acid, electrolytic oxidation of (LABHARDT), A., i, 289.
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- m*-Toluidine, 5-nitro-, methylation of, and its hydrobromide (HAIBACH), A., i, 443.
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- 5-Toluidine, 2:4-di-bromo-, and its acetyl derivative (DAVIS), T., 872; P., 1902, 118.
- 6-Toluidine, 2:4-di-nitro- (COHEN and DAKIN), T., 28; P., 1901, 214.
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- o*-Tolunaphthacridine (ULLMANN), A., i, 119.
- p*-Toluoiltartaric acid, ethyl ester, nitration of (FRANKLAND, HEATHCOTE, and GREEN), P., 1902, 251.
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(Tolyl compounds $Me=1$.)

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1-*m*-Tolyl-2:5-dimethylpyrrole and its **3:4-dicarboxylic acid** (BÜLOW and LIST), A., i, 312.

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o-Tolyl ethyl ketone and its semicarbazone (BLAISE), A., i, 164.

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p-Tolylhydrozoacetaldoxime, constitution of (VOSWINCKEL), A., i, 844.

6-Tolylhydroxylamine, 2:4-*d*-nitro- (COHEN and DAKIN), T., 27; P., 1901, 214.

o-Tolylhydroxyoxamide and its salts and acetyl derivative (PICKARD, ALLEN, BOWDLER, and CARTER), T., 1571; P., 1902, 197.

p-Tolyl-*m*-hydroxyphenazinesulphonic acid and its salts (GNEHM and VEILLON), A., i, 288.

5-Tolyl- ψ -indophenazine, and 9-bromo- (V. KORCZYNSKI and MARCHLEWSKI), A., i, 648.

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- (*Tolyl compounds Me=1.*)
- p-Tolyl- α -naphthylamine** and its acyl, bromo-, nitro-, and nitroso-derivatives, and -sulphonic acid and its salts (GNEHM and RÜBEL), A., i, 145.
- m-Tolynitrosoamine**, 2:4:6-tribromo- (HANTZSCH and POHL), A., i, 843.
- p-Tolynitrosoamine**, *p*-mono- and 2:6-di-bromo- and *o*- and *p*-nitro- (HANTZSCH and POHL), A., i, 843.
- o-Tolylloxamic acid**, ethylester (PICKARD, ALLEN, BOWDLER, and CARTER), T., 1571.
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- o-Tolylphthalamic acid**, nitroso-derivative of (KUCHARA and FUKUI), A., i, 35.
- o-Tolylphthalimides**, *s*- and α - (KUCHARA and FUKUI), A., i, 35.
- p-Tolyl-2-picolyllalkine** and its salts (DIERIG), A., i, 827.
- p-Tolyl propyl ketone**, and its semicarbazones (BLAISE), A., i, 164.
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- Tolylthioglycollic acids**, *o*- and *p*- (RA-BAUT), A., i, 673.
- Tolylthiohydantoic acids**, *o*- and *p*- (WHEELER and JOHNSON), A., i, 760.
- Tolyl- ψ -thiohydantoin**s, *o*- and *p*-, labile and stable, and their acetyl derivatives (WHEELER and JOHNSON), A., i, 759.
- o-Tolyltrimethylammonium bromide**, 4-nitro- (STADEN), A., i, 444.
- m-Tolyltrimethylammonium bromide**, 5-nitro- (HAIBACH), A., i, 444.
- p-Tolyltrimethylammonium bromide**, 2-nitro- (HAIBACH), A., i, 444.
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- 1:2:3-Triazole**, synthesis of derivatives of (DIMROTH), A., i, 403.

- 1:2:4-Triazole** (*pyrro- $\alpha\beta'$ -diazole*) derivatives (WHEELER and BEARDSLEY), A., i, 502.
- Triazolens**, so-called, constitution of (HANTZSCH), A., i, 325.
- Tribenzoyl-**. See under the Parent Substance.
- Tribenzylamine**, and its *m*-tricarboxylic acid, and *tri-m*-cyano-derivative (EHRICH), A., i, 25.
- Tribenzyltriaminotri-*p*-tolylarsine** (MICHAELIS and KRAHE), A., i, 521.
- $\alpha\alpha\gamma$ -Tribenzylsulphone- $\alpha\gamma$ -diphenylpropane** (POSNER), A., i, 297.
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- sec*-Tricapryl alcohol**. See *sec*-Trioctyl alcohol.
- Tricarballylic acid** (*propane $\alpha\beta\gamma$ -tricarboxylic acid*), synthesis and dissociation constant of, and its cyano-derivative, esters, and anhydro-acid (BONE and SPRANKLING), T., 29; P., 1901, 215.
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- Tri- ψ -cumylarsenic** compounds (MICHAELIS and v. KARCHOWSKI), A., i, 523.
- Tridecane** and chloro- (MABERY), A., i, 733.
- 1:2:3-Triethoxybenzene**. See Pyrogallol triethylether.
- p*-Triethylarsenibenzobetaine** and its salts (MICHAELIS and EPPENSTEIN), A., i, 414.
- Triethylbenzene**, *s*- and *as*-, separation of (KLAGES), A., i, 432.
- Triethylbenzenesulphonic acids**, *s*- and *as*-, and their salts, chlorides, amides, and anilides (KLAGES), A., i, 433.
- s*-Triethyliodobenzene** (KLAGES), A., i, 433.
- Triethyl- β -naphthylammonium iodide** (REYCHLER), A., i, 757.
- Tri-*p*-ethylphenylarsenic** compounds (MICHAELIS and SCHNEEMANN), A., i, 523.
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- 1:2:3-Trihydroxybenzylideneaniline** (DIMROTH and ZOEPRITZ), A., i, 294.
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- $\alpha\beta\gamma$ -Trihydroxy- $\alpha\delta$ -diphenylvaleric acid** and its salts (THIELE and STRAUS), A., i, 158.
- 3:3':4'-Trihydroxyflavone** and its triacetate (v. KOSTANECKI and RÓŻYCKI), A., i, 105.
- 3:3':5'-Trihydroxyflavone** and its triacetate (v. KOSTANECKI and WEINSTOCK), A., i, 817.
- 1:8:9-Trihydroxyhexahydrocymene** (STEPHAN and HELLE), A., i, 631.
- Trihydroxymethylanthraquinone** (m. p. 224.5°—225.5°). See *iso*Hydroxymethylchrysin.
- 4:5:5-Trihydroxy-4-methyldihydrouracil** (BEHREND and GRÜNEWALD), A., i, 834.
- 2:3:8-Trihydroxynaphthalene** and its triacetate, trimethyl ether, and -6-sulphonic acid (FRIEDLÄNDER and SILBERSTERN), A., i, 794.
- 1:8:9-Trihydroxyterpane** (WALLACH and RAHN), A., i, 804.
- Trihydroxyterpineol** (WALLACH and RAHN), A., i, 723.
- 2:2':2''-Trihydroxy-1:1':1''-trinaphthylmethane**, *eso*anhydride of, disruption of, by bromine (FOSSE), A., i, 449.
- $\beta\gamma\delta$ -Triketopentane**, preparation of, and its diphenylhydrazone, and disemicarbazone (SACHS and RÖHMER), A., i, 837.
- $\beta\gamma\delta$ -Tri keto- δ -phenylbutane** and its hydrate, β -phenylhydrazone and β -semicarbazone (SACHS and RÖHMER), A., i, 837.
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- 2:4:6-Trimethoxydiphenyltriketone** phenylhydrazone (v. KOSTANECKI and TAMBOR), A., i, 471.
- 2:4:6-Trimethoxy-2'-ethoxybenzoylacetophenone** phenylhydrazone (v. KOSTANECKI and TAMBOR), A., i, 471.
- 3:3':5'-Trimethoxyflavone** (v. KOSTANECKI and WEINSTOCK), A., i, 817.
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